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IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION

GREE, INC.,	) (	CIVIL ACTION NOS.
	) (	2:19-CV-70-JRG-RSP
PLAINTIFFS,	) (	2:19-CV-71-JRG-RSP
	) (	
VS.	) (	
	) (	MARSHALL, TEXAS
SUPERCELL OY,	) (	SEPTEMBER 11, 2020
	) (	8:30 A.M.
DEFENDANTS.	) (	

TRANSCRIPT OF JURY TRIAL  
VOLUME 3 - MORNING SESSION  
BEFORE THE HONORABLE JUDGE RODNEY GILSTRAP  
UNITED STATES CHIEF DISTRICT JUDGE

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17 (Proceedings recorded by mechanical stenography, transcript  
18 produced on a CAT system.)  
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P R O C E E D I N G S

(Jury out.)

COURT SECURITY OFFICER: All rise.

THE COURT: Be seated, please.

Are the parties prepared to read into the record those items from the list of pre-admitted exhibits that were used during yesterday's portion of the trial?

MS. LUDLAM: Yes, Your Honor.

THE COURT: Please go to the podium and proceed.

MS. LUDLAM: Plaintiff's identification of admitted exhibits are PTX-1, PTX-2, PTX-3, PTX-4, PTX-5, PTX-139, PTX-142, and PTX-163.

THE COURT: All right. Is there any objection to that rendition, from the Defendant?

MR. DACUS: No, Your Honor.

THE COURT: All right. Does Defendant have a similar rendition to offer?

MR. DACUS: I don't think we have any exhibits, Your Honor, thank you.

THE COURT: All right. Mr. Moore, if you'd like to return to the podium and get prepared to continue your direct examination.

I see Dr. Akl is back on the witness stand, and I remind the witness he remains under oath. When you're ready and in position, we'll bring in the jury.

08:32:19 1 All right. Let's bring in the jury.

08:32:21 2 COURT SECURITY OFFICER: All rise.

08:32:30 3 (Jury in.)

08:33:09 4 THE COURT: Good morning, ladies and gentlemen.

08:33:10 5 Please be seated.

08:33:10 6 We will continue with the direct examination of

08:33:14 7 Dr. Robert Akl by the Plaintiff.

08:33:16 8 And, Mr. Moore, you may proceed with the remainder

08:33:20 9 of your direct examination.

08:33:21 10 MR. MOORE: Good morning, Your Honor. And thank

08:33:23 11 you very much.

08:33:23 12 ROBERT AKL, PH.D., PLAINTIFF'S WITNESS, PREVIOUSLY SWORN

08:33:23 13 DIRECT EXAMINATION CONTINUED

08:33:24 14 BY MR. MOORE:

08:33:24 15 Q. Good morning, Dr. Akl.

08:33:25 16 A. Good morning.

08:33:25 17 Q. Good morning.

08:33:27 18 When we left off yesterday, Dr. Akl, I think you

08:33:30 19 had just described the three Supercell games that you

08:33:33 20 analyzed for infringement in this case; is that correct?

08:33:36 21 A. Yes.

08:33:37 22 Q. Okay. Now, I'd like to turn to your infringement

08:33:39 23 analysis.

08:33:40 24 Before we get to the claims, could you please

08:33:44 25 explain to the jury your opinion about how Supercell itself

08:33:52 1 performs the infringement of the five patents in question  
08:33:55 2 here?

08:33:55 3 A. So Supercell directly infringes by running the games on  
08:34:06 4 their servers. Supercell has two servers, one on the East  
08:34:11 5 Coast and one on the West Coast. One, I believe, in Oregon  
08:34:15 6 and one in Virginia.

08:34:17 7 Supercell infringes by having the servers also  
08:34:22 8 communicate with the phones, and the phones running the  
08:34:26 9 games. So the Supercell game system includes both the  
08:34:31 10 servers and the games running on the phones which have to  
08:34:35 11 be connected to the server to play.

08:34:37 12 Q. And please remind us, how does a user -- what does a  
08:34:42 13 user have to do in order to play one of the Supercell  
08:34:45 14 games?

08:34:45 15 A. So the user first has to download the games, and the  
08:34:49 16 games are available on the Apple App Store, if you have an  
08:34:56 17 iPhone, and they're available on the Google Play Store if  
08:35:01 18 they have an Android phone.

08:35:03 19 They need to have an Internet connection to  
08:35:05 20 download the game, and they need to have an Internet  
08:35:08 21 connection to play the game where the game -- where their  
08:35:12 22 phone has to be connected to the Supercell servers.

08:35:14 23 Q. And when the player is done playing and logs off the  
08:35:19 24 game or turns off the phone, what happens to all the data  
08:35:22 25 about the progress that the -- that the user has made in

08:35:24 1 the game?

08:35:24 2 A. It's all saved on the Supercell servers.

08:35:28 3 Q. How do you know that?

08:35:29 4 A. Because when you launch the game again, it will  
08:35:34 5 communicate with the server, and if you delete the game and  
08:35:38 6 re-download it or if you get a new phone and download the  
08:35:43 7 game on a new phone, it will connect with the server, and  
08:35:47 8 it will download your progress, and you pick up where you  
08:35:50 9 left off.

08:35:51 10 Q. Okay. Now, have you seen documents or testimony in  
08:35:55 11 this case that talks about Supercell's servers?

08:35:58 12 A. Yes.

08:36:00 13 Q. All right.

08:36:03 14 MR. MOORE: Mr. Groat, would you please pull up  
08:36:06 15 Plaintiff's Exhibit 111? And if you could please blow up  
08:36:15 16 the top part of the page.

08:36:16 17 Q. (By Mr. Moore) What is Plaintiff's Exhibit 111?

08:36:18 18 A. This is a declaration from Supercell's legal counsel  
08:36:26 19 Hannu Partanen.

08:36:28 20 Q. And what is the subject of -- or -- or -- I'm sorry,  
08:36:32 21 let me strike that.

08:36:33 22 To whom did Mr. Partanen make this declaration?

08:36:36 23 A. To the Tokyo District Court.

08:36:40 24 Q. And do you see at the upper right-hand corner the --  
08:36:44 25 the heading that says Declaration re? How is that relevant

08:36:49 1 to your testimony about the servers?

08:36:50 2 A. If we actually go to the -- so this declaration is two  
08:36:53 3 pages, and it's numbered paragraphs. If we go to the next  
08:36:58 4 page, Paragraphs 10, 11, and 12 are relevant to my opinion  
08:37:04 5 here.

08:37:04 6 Q. All right.

08:37:05 7 MR. MOORE: Could you please blow -- blow those up  
08:37:08 8 for me, Mr. Groat? Thank you.

08:37:10 9 Q. (By Mr. Moore) And how are these paragraphs of  
08:37:14 10 Mr. Partanen's declaration relevant to your opinions in  
08:37:17 11 this case?

08:37:17 12 A. So he testified that Supercell utilizes the Amazon Web  
08:37:25 13 Services Cloud servers, and Supercell's AWS accounts are  
08:37:29 14 owned and in the name of Supercell Oy. And each server  
08:37:34 15 owned in the name of Supercell Oy is located in the United  
08:37:38 16 States and Europe. In the United States, they're Amazon  
08:37:43 17 AWS East and West, and in Europe and Frankfurt.

08:37:47 18 Q. And, again, who is Mr. Partanen?

08:37:51 19 A. He is Supercell's legal counsel. It's on the first  
08:37:53 20 page.

08:37:53 21 Q. And this is a statement he made to the Court in Japan;  
08:37:56 22 is that right?

08:37:56 23 A. Yes.

08:37:57 24 Q. Okay. Now, have you also seen any --

08:38:00 25 MR. MOORE: You may take that down. Thank you.



08:38:02 1 Q. (By Mr. Moore) Have you seen any testimony from any of  
08:38:04 2 Supercell's representatives about the location of their  
08:38:08 3 servers?

08:38:08 4 A. Yes.

08:38:12 5 Q. And what do you understand from the testimony you  
08:38:14 6 reviewed from Supercell's representatives in terms of where  
08:38:18 7 their servers are located?

08:38:19 8 A. They're located in Virginia and Oregon, I believe,  
08:38:25 9 according to Ostler's deposition.

08:38:27 10 Q. Okay. And why is that relevant to your infringement  
08:38:30 11 analysis in this case?

08:38:31 12 A. Because they need to be in the United States. They  
08:38:34 13 need to be owned and operated by Supercell for direct  
08:38:40 14 infringement, which they are.

08:38:41 15 Q. Okay. So the -- the conduct of Supercell must have  
08:38:44 16 taken place in the United States for there to be  
08:38:46 17 infringement of a U.S. patent; is that correct?

08:38:48 18 A. Yes, this is my understanding of legal principles.

08:38:51 19 Q. All right. And did you find that to be true in this  
08:38:53 20 case for Supercell's infringement of all five of the  
08:38:56 21 patents here?

08:38:56 22 A. Yes.

08:38:58 23 Q. Thank you.

08:39:00 24 Let's move on to the first of the five patents.  
08:39:03 25 And please remind us -- reorient us to which patent we're

08:39:07 1 going to be talking about here.

08:39:08 2 A. So the first thing we're going to be going through is  
08:39:11 3 Supercell's direct infringement of Claim 2 of the '594  
08:39:20 4 template patent through Clash of Clans.

08:39:22 5 Q. All right. Now, you said this yesterday, but to remind  
08:39:24 6 us, what type of a claim is Claim 2?

08:39:27 7 A. Go to the next slide.

08:39:30 8 Q. Sure.

08:39:31 9 MR. MOORE: Yes, thank you.

08:39:32 10 A. So Claim 2 is a dependent claim because the first part  
08:39:36 11 of Claim 2 says, the method according to Claim 1. So  
08:39:40 12 because it's a dependent claim, I have to look at Claim 2  
08:39:44 13 and all the elements of Claim 1.

08:39:47 14 Q. (By Mr. Moore) And what do you have to show in order  
08:39:49 15 for this jury to conclude that Supercell has infringed  
08:39:52 16 Claim 2?

08:39:53 17 A. We have to -- or I have to do the analysis of every  
08:39:58 18 single limitation or element of Claim 1 and Claim 2.

08:40:04 19 Q. All right. And do you have a black binder in front of  
08:40:07 20 you, Dr. Akl?

08:40:08 21 A. I do.

08:40:09 22 Q. Okay. Because while we're showing the claim language  
08:40:12 23 here, I'm going to be showing you other slides. If you  
08:40:15 24 need to look at the claims, I would point you to that --  
08:40:20 25 that binder which contains all the patents.

08:40:23 1 All right. Then let's proceed with the analysis.

08:40:29 2 What did you do in order to determine that

08:40:32 3 Supercell infringed Claim 2 of the '594 patent?

08:40:35 4 A. So, first, I looked at the games, I've played the

08:40:42 5 games, I looked at documents, and I looked at the source

08:40:45 6 code that tells me how the games operate.

08:40:47 7 Q. All right. Well, let's start with the first piece of

08:40:53 8 the claim. And what are we starting with here?

08:40:55 9 A. So the -- the first part of the claim is called the

08:40:59 10 preamble. So this is one -- the first part of Claim 1

08:41:03 11 which says: A method for controlling a computer that is

08:41:08 12 provided with a storage unit configured to store game

08:41:13 13 contents arranged within a game space.

08:41:15 14 Q. And to prove that Supercell directly infringes Claim 2,

08:41:20 15 what do you have to show regarding the method that's

08:41:23 16 specified here?

08:41:24 17 A. I need to show that there is a method for controlling a

08:41:29 18 computer. And the computer are the Supercell servers, and

08:41:32 19 the phones that are running the Supercell games. And they

08:41:38 20 need to have a storage unit that's configured to store game

08:41:43 21 contents. So we'll see the games playing. There is

08:41:46 22 storage on the servers. There is storage on the phones,

08:41:50 23 which will store the game content within the game space.

08:41:55 24 So for this element and every element, I will show

08:41:58 25 a screenshot. Sometimes I'll show a video. And this is

08:42:01 1 how we're -- I'm going to walk through the infringement.

08:42:03 2 Q. Okay. Well then, how does Supercell control a computer  
08:42:07 3 that's provided with a storage unit configured to store  
08:42:09 4 game contents arranged within a game space using Clash of  
08:42:15 5 Clans?

08:42:15 6 A. So through the source code. Supercell's source code  
08:42:17 7 for the games running on the servers and the servers  
08:42:19 8 communicating with the phones and the phones also running  
08:42:22 9 the Supercell games infringe the preamble.

08:42:30 10 Q. All right.

08:42:31 11 MR. MOORE: If we can go to the next slide,  
08:42:33 12 please. My control seems to be not working. All right.  
08:42:36 13 Thank you.

08:42:36 14 Q. (By Mr. Moore) What are you illustrating here on this  
08:42:38 15 slide?

08:42:38 16 A. So we are looking at Clash of Clans. So the game  
08:42:44 17 content is -- is all of what you see here, which are the  
08:42:46 18 buildings, the troops, the walls that you place on a game  
08:42:55 19 space.

08:42:55 20 So the game space is the green background. That's  
08:42:58 21 the game space. And this is the game running on the phone.  
08:43:02 22 The phones have storage. The game also runs on the  
08:43:06 23 servers. The servers have storage. And so this will show  
08:43:10 24 that there is infringement of the preamble of Claim 1.

08:43:18 25 Q. All right.

08:43:21 1 MR. MOORE: If you go to the next slide, please.

08:43:23 2 Thank you. Hold it there, please.

08:43:25 3 Q. (By Mr. Moore) Now, what does this shot -- slide show,  
08:43:28 4 which has listed on it PTX-163?

08:43:30 5 A. So I played the games myself, and the videos are of me  
08:43:35 6 playing the games. So this is my hand holding a phone and  
08:43:39 7 playing the game. This is the lower part of the screen.  
08:43:43 8 And the top part of the screen is just the recording of the  
08:43:48 9 screen, because sometimes I'm going to be using my right  
08:43:51 10 hand to do touch operations which will block some view from  
08:43:56 11 the phone. But on the top part, you'll see exactly what  
08:43:59 12 the phone sees.

08:44:00 13 So they're both identical, just one is a view of  
08:44:04 14 me playing the phone, and one is just the view of the phone  
08:44:07 15 alone, the recording.

08:44:09 16 Q. And what type of phones did you play these games on?

08:44:12 17 A. I played them on an Android -- I believe Samsung  
08:44:18 18 phone -- and an Apple iPhone.

08:44:21 19 Q. Okay. And do you recognize what I'm holding up as  
08:44:24 20 PTX-654 and 655?

08:44:25 21 A. Yes. These are the two phones that I asked counsel to  
08:44:28 22 get so I can play the games on.

08:44:31 23 Q. All right. Thank you.

08:44:39 24 Now, let me make sure I understand what you're  
08:44:41 25 recording on the video. The bottom part is just a camera

08:44:45 1 shooting you and your hand playing the game.

08:44:47 2 A. Yes. The camera was above me. I was holding the phone  
08:44:54 3 on the table, and there was a photographer videotaping me  
08:44:57 4 playing the game.

08:44:58 5 Q. And how does the top image capture?

08:45:00 6 A. So you'll see a cord coming out of the phone and the  
08:45:05 7 phone -- and this is for the audio -- and the phones also  
08:45:06 8 have a capability to record a video. So in both cases, I  
08:45:09 9 recorded the phone, me, as I was playing it, while I was  
08:45:13 10 being recorded playing the phone.

08:45:15 11 Q. All right. And so, are the -- do the images and the  
08:45:22 12 movement of the game match between the two?

08:45:24 13 A. Yes, they're supposed to.

08:45:25 14 Q. All right. Let's go ahead and run this. And I think  
08:45:29 15 we don't have the sound; is that right?

08:45:29 16 A. Yes, we don't need the sound. I can narrate what's  
08:45:29 17 happening.

08:45:29 18 Q. All right. So let's do that, please. What is  
08:45:30 19 happening here?

08:45:30 20 A. Yes. So this is just showing for the Claim 1, the  
08:45:36 21 preamble, I'm just moving around the game, showing the game  
08:45:40 22 content, which are the buildings, the towers. You see some  
08:45:46 23 bats flying or some dragons flying. So this is -- these  
08:45:50 24 are all game content, and the green area is the game area.

08:45:54 25 So satisfying the claim language.

08:45:57 1 Q. Okay. And could you give us an example of -- for  
08:46:00 2 example, what's shown here on the -- on the screen? What  
08:46:03 3 type of building is that?

08:46:04 4 A. Yes. So this is an example. This is called a bomb  
08:46:11 5 tower. You can click or select any building, and it gives  
08:46:14 6 you statistics on those buildings. And in this example,  
08:46:17 7 this is a tower that can provide defense to your city.

08:46:22 8 Q. So what conclusion did you reach regarding Supercell's  
08:46:24 9 direct infringement of the preamble of Claim 1?

08:46:27 10 A. That Supercell directly infringes the preamble of  
08:46:31 11 Claim 1.

08:46:32 12 Q. All right. And what have we done here to note that?

08:46:35 13 A. So I put a checkmark. And as we walk through each  
08:46:39 14 element, I'm going to put a checkmark for each element we  
08:46:43 15 cover, and highlight the next element we're going to walk  
08:46:46 16 through.

08:46:46 17 Q. All right. Let's go to that next element. What does  
08:46:49 18 Element 1a require?

08:46:50 19 A. Element 1a requires first positions of the game  
08:46:56 20 contents within the game space.

08:46:59 21 Q. And how does Supercell directly infringe with Clash of  
08:47:05 22 Clans for that claim element?

08:47:06 23 A. So the first position is what we already saw, which is  
08:47:11 24 just the first position of all the buildings. So the  
08:47:18 25 location of all the buildings and the towers and the walls

08:47:20 1 would constitute a first position of game content within  
08:47:24 2 the game space.

08:47:25 3 Q. And do you have a videoclip that illustrates this claim  
08:47:28 4 element?

08:47:28 5 A. Yes.

08:47:30 6 MR. MOORE: And we're showing for the record  
08:47:32 7 Plaintiff's Exhibit 164. Please run that.

08:47:36 8 Q. (By Mr. Moore) And explain what is shown in the clip?

08:47:38 9 A. So, again, very similar to what was shown before, I'm  
08:47:42 10 going to walk around, and I can click on the area, and so  
08:47:48 11 the -- the -- what we're seeing here is the editor.

08:47:53 12 So you can lay all the buildings on the green  
08:47:56 13 background, and you can go into the editor. You can move  
08:48:00 14 them around. You can save. But to meet the first  
08:48:02 15 limitation, you just need to have them in one place.  
08:48:06 16 That's the first position.

08:48:07 17 Q. All right.

08:48:08 18 MR. MOORE: Could you run that short clip again?

08:48:10 19 Q. (By Mr. Moore) And explain what the button is that you  
08:48:12 20 pressed there?

08:48:12 21 A. So the button on the left says active village, and then  
08:48:22 22 you can basically just go to your editor to the village  
08:48:26 23 that you have active.

08:48:27 24 And as we'll see, you can have multiple copies or  
08:48:30 25 templates. So this is just the active village is our first



08:48:34 1 position.

08:48:34 2 Q. And so a player can have multiple different layouts  
08:48:40 3 saved; is that right?

08:48:41 4 A. Yes.

08:48:42 5 Q. Okay. Thank you.

08:48:44 6 All right. So what is your conclusion regarding  
08:48:49 7 Claim 1, Element a.

08:48:50 8 A. That it's infringed by Supercell.

08:48:52 9 Q. Now, let's look at Claim 1, Element b. What does this  
08:48:56 10 element involve?

08:48:57 11 A. For Element b we need: And a template defining second  
08:49:07 12 positions of one or more of the game contents.

08:49:09 13 Q. And did the Court give any interpretations or claim  
08:49:13 14 constructions for this particular element?

08:49:15 15 A. Yes. So the Court defined two terms for us, and I have  
08:49:21 16 to abide by the definitions from the Court.

08:49:24 17 Q. And did you do that in your analysis in this case?

08:49:27 18 A. Yes.

08:49:27 19 Q. Could you please review with the jury what the Court's  
08:49:30 20 constructions say?

08:49:31 21 A. So the claim has two terms that are defined by the  
08:49:37 22 Court. The first is the word "template." And the Court  
08:49:39 23 gave the definition that template means data structure  
08:49:44 24 storing a pattern. And the second part of the claim the  
08:49:50 25 Court gave a definition that, defining a second position

08:49:54 1 for each of one or more of the game contents.

08:50:00 2 Q. And how does Clash of Clans -- how does Supercell  
08:50:06 3 controlling Clash of Clans meet this claim element as the  
08:50:09 4 Court has construed it?

08:50:10 5 A. So data structure is something you use in computer  
08:50:13 6 science to store variables. It's a way of storing  
08:50:16 7 information in a computer program. So the data structure  
08:50:18 8 itself, I look at the source code to see that those  
08:50:22 9 buildings are stored in data structures.

08:50:24 10 For the second position, I will demonstrate both I  
08:50:29 11 can see it in the source code, but I can also demonstrate  
08:50:32 12 it visually by moving the buildings. And I will do that  
08:50:35 13 and then store the second location that will meet the claim  
08:50:40 14 language.

08:50:40 15 Q. Okay. And do you have a videoclip that you'd like to  
08:50:45 16 use to illustrate that?

08:50:46 17 A. Yes.

08:50:47 18 MR. MOORE: Please -- if we could please play the  
08:50:51 19 clip.

08:50:51 20 Q. (By Mr. Moore) And if we can explain what we're seeing  
08:50:54 21 here on Plaintiff's Exhibit 164?

08:50:55 22 A. So what I will do is I zoom in, I pinch the Zoom, I can  
08:51:00 23 select the building, and I can move the building. And so  
08:51:03 24 you saw me just move one building, and then I can save. It  
08:51:07 25 asks me if I want to save. I say yes. And so this is an

08:51:11 1 example. And now it's saved. So now we have a template  
08:51:15 2 with a second position.

08:51:16 3 Now, in this case, I just moved one building, but  
08:51:19 4 you can move any number of buildings. You can move, you  
08:51:22 5 know, two or three. And the movement of those buildings  
08:51:24 6 are saved in a data structure in the source code.

08:51:28 7 Q. And when you click to save where you had moved this  
08:51:32 8 gold storage building from one place to the other, where is  
08:51:36 9 that shown here in the layout editor menu? Which -- which  
08:51:41 10 layout will that be in?

08:51:43 11 A. It's still in my active village layout. So I haven't  
08:51:48 12 changed from the current active village layout.

08:51:51 13 Q. You just made an edit to your existing active layout?

08:51:55 14 A. Yes. I created a second position by moving a building.

08:51:57 15 Q. Now, I'd like to show you another videoclip, this one  
08:52:01 16 from Plaintiff's Exhibit -- oh, I'm sorry, I'm jumping  
08:52:04 17 ahead a little bit. That's fine.

08:52:07 18 So what is your conclusion about Claim Element b?

08:52:10 19 A. That Supercell infringes Element b.

08:52:18 20 Q. Now, let's go on to Claim 1, Element c and what does  
08:52:25 21 this claim element require?

08:52:26 22 A. And that progresses a game by arranging the game  
08:52:30 23 contents within the game space based on a command by a  
08:52:32 24 player, the method comprising.

08:52:34 25 Q. How does Supercell infringe this element of Claim 1?

08:52:39 1 A. So we need to determine that Supercell has a command by  
08:52:47 2 a player. So the user has to issue a command or there has  
08:52:50 3 to be a command. And looking at -- at the source code and  
08:52:54 4 looking at the game, the user can set as active, and that's  
08:52:59 5 the command that would meet the claim language.

08:53:02 6 MR. MOORE: Let's go now to the next video that I  
08:53:04 7 mentioned earlier, Plaintiff's Exhibit 166. Could we  
08:53:09 8 please play that video?

08:53:10 9 Q. (By Mr. Moore) And explain why this supports your view  
08:53:12 10 on this element.

08:53:14 11 A. So what we're looking at is now -- for example, I've  
08:53:21 12 cleared the green space. This is my area. And then I can  
08:53:24 13 go into my editor, I can select a template. So I've  
08:53:27 14 selected the one in the middle. And I clicked set as  
08:53:34 15 active.

08:53:34 16 And now the middle one says active village, while  
08:53:37 17 before the one on the left was active village. So I --  
08:53:41 18 I've used the command set as active at the bottom to select  
08:53:47 19 a template. And that is one example of a command that  
08:53:52 20 meets the claim language.

08:53:53 21 Q. Okay. All right. So let me -- let me make sure this  
08:53:56 22 is clear.

08:53:56 23 In this -- in your -- when you're playing the game  
08:54:00 24 here, is it true that you had two layouts for your villages  
08:54:04 25 that you could choose for, to use in the game?

08:54:06 1 A. Yes.

08:54:07 2 Q. The one on the left and the one in the center?

08:54:09 3 A. Yes.

08:54:12 4 Q. All right. And how did you change from using the one  
08:54:15 5 on the left to using the one in the center?

08:54:18 6 A. So you can select any layout. If that layout is not  
08:54:23 7 your active village, I can click the set as active button  
08:54:28 8 on the bottom row, and that is the command that makes  
08:54:35 9 whatever template I select become my active village.

08:54:40 10 Q. In this -- in this example, had you already created and  
08:54:43 11 saved the layout in the middle that you then set as your  
08:54:46 12 new active layout?

08:54:48 13 A. Yes.

08:54:48 14 Q. You'd already done that in the game?

08:54:50 15 A. Yes.

08:54:51 16 Q. Okay. All right. And so, what is your conclusion with  
08:54:55 17 respect to Claim Element 1c?

08:54:59 18 A. So it is met by the set as active. It's also met by  
08:55:09 19 copy layout.

08:55:09 20 Q. All right. And we'll -- we'll get into -- we'll get  
08:55:11 21 into copy layout, as well.

08:55:12 22 Okay. Well, let's move on to claim element -- the  
08:55:19 23 last piece of Claim 1, which is Element d.

08:55:22 24 And what does this element require, Dr. Akl?

08:55:25 25 A. When the template is applied to a pre-determined area

08:55:29 1 within the game space based on the command by the player,  
08:55:34 2 moving, by the computer, the game contents arranged at the  
08:55:40 3 first positions within the game space to second positions  
08:55:44 4 of the game contents defined by the template within the  
08:55:49 5 pre-determined area.

08:55:50 6 Q. Okay. That one is a bit of a mouthful, isn't it?

08:55:53 7 A. It is. But really all it means is that we're moving  
08:55:57 8 from a first space or first location to a second location  
08:56:02 9 by arranging the content and having two different  
08:56:04 10 templates.

08:56:05 11 Q. And how does having two different templates or -- well,  
08:56:09 12 strike that.

08:56:09 13 By two different templates, are you referring in  
08:56:12 14 your game example to the two layouts that you've previously  
08:56:15 15 created and stored?

08:56:16 16 A. Yes. Or -- so we saw as we were walking through the  
08:56:19 17 videos, we first had my initial layout, and this is your  
08:56:23 18 first template. And then I can move a building or move  
08:56:28 19 multiple buildings, and I can create a second template. I  
08:56:31 20 can save that.

08:56:32 21 And if I can go in and I can set a second template  
08:56:37 22 where the buildings are moved as my active or if I copy  
08:56:43 23 into an empty slot -- or into any slot, really -- what I  
08:56:51 24 originally had as a first position and then what I have as  
08:56:54 25 a second position, that would meet the claim language of

08:56:57 1 you have a template applied to a pre-determined area.

08:57:01 2 That's your green background. Within the game space.

08:57:05 3 That's the green stuff. And the pre-determined area is

08:57:07 4 where you place the buildings. By a command by the player,

08:57:12 5 like set as active or copy. By the computer, you're using

08:57:15 6 your phone. The game content arranged at the first

08:57:19 7 position. This was the first template that we saw in

08:57:23 8 Element 1a. To the second position. This was the second

08:57:27 9 position that we saw in Element 1b. Of the game content

08:57:31 10 defined by the template within the pre-determined area.

08:57:35 11 Q. You mentioned that the computer -- one example of that

08:57:37 12 was your phone. Are there other examples of what can be

08:57:41 13 the computer in this claim element?

08:57:42 14 A. Yes. The second would be the server, because

08:57:45 15 anything -- when a user moves anything on their phone, I've

08:57:49 16 looked at source code of how the phone communicates with

08:57:52 17 the server, and that information is also relayed to the

08:57:56 18 server, and the server saves the same information. So the

08:57:59 19 template in the first position and the second position is

08:58:03 20 also saved on Supercell's servers.

08:58:06 21 Q. Thank you.

08:58:06 22 Now, do you -- do you have a video that helps us

08:58:09 23 illustrate this longer claim element here?

08:58:11 24 A. Yes.

08:58:12 25 Q. All right.

08:58:12 1 MR. MOORE: Let's look at that. Could we play the  
08:58:14 2 video off of Plaintiff's Exhibit 166, please?  
08:58:16 3 Q. (By Mr. Moore) And please illustrate it for us.  
08:58:21 4 A. So here I am exiting the editor, and I'm showing you  
08:58:27 5 the layout that I have.  
08:58:32 6 Q. Okay.  
08:58:33 7 A. So after -- so this is the last step. So after I've  
08:58:37 8 set it as active -- and when you exit, you've seen that  
08:58:41 9 what used to be green or what used to be the first position  
08:58:45 10 is now the -- the second position. So the building has  
08:58:48 11 moved. That's enough to satisfy the claim language.  
08:58:51 12 Q. And which building are you talking about?  
08:58:53 13 A. So the -- the template that I selected where I moved  
08:58:57 14 one building -- I believe it was up here --  
08:59:00 15 Q. Right.  
08:59:00 16 A. -- that I moved it a little bit.  
08:59:03 17 Q. All right.  
08:59:04 18 MR. MOORE: Can you play this video again,  
08:59:08 19 Mr. Groat, so we can see it again?  
08:59:10 20 A. So all I needed to do was go back to my space and show  
08:59:15 21 that now my space occupies the -- my green space occupies  
08:59:19 22 the second template --  
08:59:22 23 Q. (By Mr. Moore) Okay.  
08:59:22 24 A. -- from where I had a first template.  
08:59:25 25 Q. Right. And so is what you did here is move -- as an



08:59:27 1 example move that one building from your first layout and  
08:59:32 2 then saved it as a new layout?

08:59:34 3 A. I did. And then I set it as active.

08:59:36 4 Q. And, in your opinion, does doing that meet Claim  
08:59:41 5 Element 1d?

08:59:42 6 A. Yes.

08:59:42 7 Q. All right. Now, do you have another example of how  
08:59:44 8 this claim element is met?

08:59:46 9 A. Yes.

08:59:46 10 Q. And what is that?

08:59:47 11 A. So we can copy also, and we can walk through a video of  
08:59:52 12 that.

08:59:53 13 Q. All right.

08:59:53 14 MR. MOORE: Let's show this from exhibit --  
08:59:56 15 Plaintiff's Exhibit 165. If you could run that video,  
08:59:59 16 please.

09:00:03 17 Q. (By Mr. Moore) And -- and -- and illustrate it for us,  
09:00:05 18 Dr. Akl.

09:00:06 19 A. So I go into my editor, and I can hit copy, and I can  
09:00:22 20 select the template. So what I -- the button says copy  
09:00:27 21 layout, and I selected a slot, and now I've copied a  
09:00:30 22 template into a slot.

09:00:31 23 Q. And how does that meet the requirement in the claim  
09:00:34 24 element that the computer has moved the game contents from  
09:00:37 25 the first to the second positions?

09:00:39 1 A. Because the first layout was my original layout where I  
09:00:45 2 had the building where it was when we first started  
09:00:48 3 Claim 1. And then I have a second layout, which is where I  
09:00:52 4 moved the building. And I saved that.

09:00:54 5 And then if I copy it into a slot and then I can  
09:00:58 6 go to that -- into my building when I exit the editor,  
09:01:03 7 which I've already shown you, I would have moved a template  
09:01:07 8 from a first position to a second position in a  
09:01:09 9 pre-determined space.

09:01:10 10 Q. All right. And so what is your conclusion as to the  
09:01:13 11 elements of Claim 1 of the '594 patent?

09:01:15 12 A. That Supercell infringes all the elements of Claim 1.

09:01:19 13 Q. Now, you mentioned previously source code. Did you  
09:01:23 14 review source code relevant to any of the aspects of  
09:01:28 15 Claim 1?

09:01:28 16 A. Yes.

09:01:29 17 Q. All right. And I think we had some discussion  
09:01:34 18 yesterday about the confidentiality; do you recall that?

09:01:36 19 A. Yes.

09:01:36 20 Q. All right. I'm going to show you that a little bit  
09:01:39 21 later due to the confidentiality, but in the interest of  
09:01:42 22 moving along now, let's -- let's -- let's move ahead.

09:01:46 23 Is -- is doing all the steps of Claim 1 enough to  
09:01:48 24 find that Supercell infringes Claim 2?

09:01:50 25 A. No.

09:01:52 1 Q. All right. What do we have to look at now?

09:01:54 2 A. The elements of Claim 2.

09:01:56 3 Q. Okay. Let's do that.

09:01:58 4 MR. MOORE: Skip over to the code.

09:02:00 5 Q. (By Mr. Moore) All right. Now, Claim 2, what does  
09:02:03 6 Claim 2 require, Dr. Akl?

09:02:04 7 A. So Claim 2 is a dependent claim. We know that because  
09:02:07 8 it starts by saying, the method according to Claim 1,  
09:02:11 9 wherein the storage unit further stores a template related  
09:02:15 10 to a different player. So you need to have a template of a  
09:02:19 11 different player.

09:02:22 12 When the template related to the different player  
09:02:24 13 is applied to a pre-determined area within the game space  
09:02:29 14 based on the command by the player, the computer moves the  
09:02:34 15 game contents arranged at the first positions within the  
09:02:38 16 game space to the second positions of the game contents  
09:02:42 17 defined by the template related to the different player.

09:02:48 18 Q. How are these -- all right. So, first, you have to  
09:02:51 19 have a different player; is that correct?

09:02:53 20 A. Yes.

09:02:53 21 Q. And in Clash of Clans, how does Clash of Clans allow  
09:02:58 22 you to perform this claim with respect to a different  
09:03:01 23 player?

09:03:02 24 A. So, because Clash of Clans is a social game and you can  
09:03:06 25 have your own social friends or you can go and see another

09:03:10 1 player's city, not only can you see it, but the game allows  
09:03:14 2 you to copy that template. There is a specific button that  
09:03:19 3 says copy template of that player, and then you can go back  
09:03:21 4 to your own city, and you can place exactly the layout of  
09:03:25 5 the other player.

09:03:26 6 Q. And how does the -- when you do that, how does the  
09:03:30 7 computer move the game contents from the first positions to  
09:03:35 8 the second positions?

09:03:36 9 A. So the -- the first position was, for example, your own  
09:03:39 10 layout, which is what we saw in Claim 1. So you had your  
09:03:42 11 own village with your own layout. That would constitute  
09:03:45 12 the first position.

09:03:46 13 And when you go and you copy a second player's  
09:03:51 14 village and you save it and you are back in your own  
09:03:55 15 village with that information and you display that village,  
09:04:01 16 you have moved from a first position to a second position,  
09:04:04 17 but now the second position is related to the different  
09:04:08 18 player's template.

09:04:09 19 Q. All right. And how is the -- how are the second  
09:04:13 20 positions defined by the template related to the different  
09:04:16 21 player?

09:04:16 22 A. They're defined also in the source code, the data  
09:04:22 23 structures.

09:04:22 24 Q. Okay. But even just from looking at the game, how do  
09:04:25 25 you know that when I've copied my clan mate's layout and

09:04:30 1 put it into my own layout slot, that now my second  
09:04:34 2 positions are defined by the template related to the  
09:04:37 3 different player?

09:04:37 4 A. Well, I have a video to show you that.

09:04:40 5 Q. All right.

09:04:40 6 A. It would be -- you will see the buildings of the second  
09:04:44 7 player, and you will see them then occupy your own space.

09:04:48 8 Q. Okay.

09:04:49 9 MR. MOORE: This is from Plaintiff's Exhibit 167.

09:04:50 10 Q. (By Mr. Moore) Is this the video you're referring to?

09:04:52 11 A. Yes.

09:04:53 12 MR. MOORE: Let's please play this.

09:04:55 13 Q. (By Mr. Moore) And please illustrate what you mean by  
09:04:58 14 that, Dr. Akl.

09:04:59 15 A. So on the left, I believe there's a social tab that you  
09:05:03 16 can press. So this is my screen, and this is originally my  
09:05:06 17 first position. You click the little menu on the left, and  
09:05:10 18 you can click the tab. Your social tab shows you your  
09:05:14 19 clan, and these are players that you're friends with. And  
09:05:18 20 so, you can click a player, and you can hit visit.

09:05:21 21 So when you hit visit, it does this little  
09:05:23 22 animation with the clouds. And now, I visited a different  
09:05:27 23 player's layout. I can hit copy, and then you have the  
09:05:31 24 animation in the clouds, and now I'm back into my own  
09:05:36 25 village, and I can save that template.

09:05:37 1           So now I see in the green space the template that  
09:05:42 2 I copied from the second player. I know this is kind of  
09:05:48 3 like a quick video, but if you want, I can walk through it.  
09:05:51 4 Q. Yeah. I wanted to show it first, but I want you to  
09:05:53 5 walk through it.  
09:05:54 6           MR. MOORE: Could you please start it over, and if  
09:05:56 7 you don't mind, I'll tell you when to hit pause so we can  
09:06:00 8 see what's happening here.  
09:06:01 9 Q. (By Mr. Moore) Okay. So where are we again here?  
09:06:03 10 A. So this is my own village. This is the first position.  
09:06:06 11 Q. Okay.  
09:06:06 12 A. And I clicked on the left and it says, my clan.  
09:06:08 13           MR. MOORE: Let's pause here, please.  
09:06:11 14 Q. (By Mr. Moore) Now, who are you?  
09:06:12 15 A. So I'm not shown here.  
09:06:14 16 Q. Okay.  
09:06:14 17 A. I'm me, and this is my clan. So these are two people  
09:06:17 18 in my clan. So a player is POW and a player is Morlock  
09:06:24 19 gamer. And so I'm going to -- what you're going to see is  
09:06:27 20 I'm going to click on Morlock gamer, and I'm going to go to  
09:06:33 21 his village, and I'm going to see his template, and I'm  
09:06:35 22 going to copy that template and bring it back to my  
09:06:39 23 village.  
09:06:40 24           MR. MOORE: All right. Could you please continue  
09:06:41 25 the video.

09:06:42 1 Q. (By Mr. Moore) And please tell us what you're seeing  
09:06:44 2 here.

09:06:44 3 A. So now what I'm going to do is I'm going to click on  
09:06:47 4 that player. And now when I click on the player, I see the  
09:06:49 5 pop-up window with visit. And so I clicked on visit and  
09:06:56 6 now I can see their village, and this is the copy layout so  
09:06:57 7 I can copy their layout and I can come back to my village.

09:07:01 8 Q. All right.

09:07:02 9 MR. MOORE: I should have said pause there. Could  
09:07:06 10 you please go back a little bit to where you're in the  
09:07:06 11 other player's village? There's one thing I wanted to  
09:07:09 12 illustrate. Okay. Now please pause it there.

09:07:11 13 Q. (By Mr. Moore) So this is the village of Morlock  
09:07:16 14 gamer, your clan mate; is that right?

09:07:19 15 A. Yes. So I know that because it says Morlock gamer and  
09:07:24 16 this is their village so this is their name and this is the  
09:07:24 17 button that I pressed.

09:07:25 18 Q. The button that's labeled, copy layout?

09:07:29 19 A. Yes.

09:07:29 20 Q. And if you press that button, what happens?

09:07:32 21 A. Then I've copied their layout, and I can go home. So  
09:07:34 22 you have -- you can -- so I can go home without copying  
09:07:35 23 their layout. This is return home button on the lower  
09:07:38 24 left. But if I want to copy their layout, this is the app  
09:07:41 25 that infringes, I'm issuing a command to copy a different

09:07:45 1 player. This is Morlock gamer's layout. And bring it to  
09:07:50 2 my own village.

09:07:51 3 MR. MOORE: All right. Please resume the video,  
09:07:59 4 Mr. Groat. Okay. Pause it here.

09:08:01 5 Q. (By Mr. Moore) So what did you do here and why did  
09:08:04 6 this pop up show up?

09:08:05 7 A. Okay. So I've copied a second player's layout. This  
09:08:09 8 is Morlock's layout. And it brings me back to my editor.

09:08:13 9 Now, sometimes when you're copying someone else's  
09:08:15 10 layout, they may have more buildings than you do or they  
09:08:19 11 may have less buildings than you do, but if they have more  
09:08:22 12 or they may have different obstacles in their village where  
09:08:27 13 they place their buildings, so if there is any discrepancy  
09:08:30 14 in terms of how you can place it, you get a pop-up message  
09:08:34 15 that you're in edit mode.

09:08:36 16 And, for example, here it says, buildings not  
09:08:40 17 found from copy layout or blocked by obstacles have been  
09:08:44 18 moved to your inventory.

09:08:46 19 So it places as much as it can from the second  
09:08:49 20 layout, and if there's any discrepancy, if you're missing  
09:08:53 21 any buildings or there are obstacles, it lets you know, and  
09:08:53 22 it places them in the bottom of the bar.

09:08:55 23 Q. What is your inventory?

09:08:56 24 A. The inventory is where you have all the buildings that  
09:09:00 25 you can use, all the troops that you can generate, the



09:09:04 1 walls, the towers, that's your inventory.

09:09:08 2 Q. And so, as I understand your testimony, if your clan  
09:09:13 3 mate, your friend's village has some buildings that you  
09:09:13 4 don't already have in your inventory, it won't put them  
09:09:17 5 directly on the layout?

09:09:17 6 A. Yes, because you don't have them. But it will show  
09:09:20 7 them at the bottom, which will allow you, for example, to  
09:09:23 8 unlock them or buy them or get them. So then you can place  
09:09:28 9 them.

09:09:28 10 Q. All right. So what about the buildings that your clan  
09:09:31 11 mate has that you do have in your inventory, what happens  
09:09:35 12 to those?

09:09:35 13 A. Those are placed on the green space.

09:09:39 14 Q. Okay.

09:09:40 15 MR. MOORE: Let's go ahead and proceed with the  
09:09:42 16 video, please.

09:09:42 17 Q. (By Mr. Moore) Now, what are we seeing here? Who's  
09:09:49 18 layout is now being shown in -- on your profile?

09:09:53 19 A. So this is Morlock's layout that's now been copied and  
09:09:58 20 is being displayed in my own editor.

09:10:01 21 Q. And it looks like Morlock has some buildings that you  
09:10:04 22 don't have?

09:10:05 23 A. Yes.

09:10:05 24 Q. Okay.

09:10:05 25 A. And -- and this is a way for me to see which buildings,

09:10:08 1 and then I can unlock them or buy them.

09:10:11 2 Q. But are all the other buildings, you know, the ones  
09:10:14 3 that aren't shown here below on the blue card, all the  
09:10:18 4 other buildings that are already on the game space, did  
09:10:20 5 those come from Morlock's layout?

09:10:22 6 A. Yes.

09:10:23 7 Q. Now, do you have an understanding of the issue that  
09:10:41 8 Supercell takes issue with, with respect to this claim  
09:10:44 9 element?

09:10:44 10 A. Yes.

09:10:45 11 Q. And what issue do you understand Supercell to disagree  
09:10:49 12 about?

09:10:50 13 A. So each player has a player ID. So, for example,  
09:10:56 14 Morlock gamer has a player ID that identifies them. When  
09:11:01 15 the layout is copied, his name isn't copied because I don't  
09:11:05 16 really care about his name. I know who he is. I'm going  
09:11:07 17 to his village.

09:11:08 18 But the variable player ID is not copied, but the  
09:11:14 19 layout of his village is copied. And my understanding is  
09:11:19 20 Supercell claims that because the player ID is not copied,  
09:11:23 21 they don't infringe.

09:11:24 22 Q. Do you agree with that?

09:11:25 23 A. No.

09:11:26 24 Q. Why not?

09:11:27 25 A. It's -- I mean, as an example, if I have a student and

09:11:32 1 my student goes and copies another student's homework and  
09:11:36 2 then puts his name on it but doesn't copy the name of the  
09:11:39 3 other student, they're still copying the other homework.  
09:11:42 4 So you are copying the second player's layout, and you have  
09:11:46 5 all the information.

09:11:47 6 The player ID is not required to be copied. The  
09:11:51 7 claim doesn't say you need to copy also the name. You just  
09:11:54 8 need to copy the template of that -- of a different player,  
09:11:58 9 which is done.

09:11:59 10 Q. Okay. Thank you.

09:12:00 11 Now, did you review any source code that helps  
09:12:02 12 illustrate or show the infringement of Claim 2, as well?

09:12:05 13 A. Yes.

09:12:06 14 Q. All right. And, again, due to the confidentiality,  
09:12:07 15 I'll show that to you a little bit later in the  
09:12:10 16 examination.

09:12:10 17 All right. So what is your conclusion as to  
09:12:12 18 Claim 2 of the '594 patent, Dr. Akl?

09:12:15 19 A. That Supercell infringes the -- Claim 2 of the '9 -- of  
09:12:22 20 the '594 patent.

09:12:23 21 Q. And does it do so directly?

09:12:26 22 A. Yes.

09:12:27 23 Q. All right. Do we need to do anything else other than  
09:12:30 24 look through the source code we'll look to -- through later  
09:12:33 25 to reach a conclusion of infringement as to this claim?

09:12:35 1 A. No. We can go on to the next two patents.

09:12:37 2 Q. Okay. Let's do that.

09:12:38 3 What are the next two that we're going to look at?

09:12:41 4 A. We're going to look at the '137 and the '481, the  
09:12:49 5 battle patents.

09:12:50 6 Q. And, please, just very quickly remind us what these  
09:12:53 7 patents are about.

09:12:53 8 A. So these are the -- the battle patents where you're --  
09:12:57 9 you have game content at the bottom that you move and you  
09:13:00 10 deploy and you attack enemy characters with your player  
09:13:05 11 characters.

09:13:06 12 Q. And what game are -- infringes the battle patents?

09:13:10 13 A. So we're going to look at Clash Royale.

09:13:12 14 Q. Okay. And what are your conclusions as to Supercell's  
09:13:18 15 direct infringement of the battle patents?

09:13:20 16 A. So for the '137 battle patent, I'm going to look at  
09:13:25 17 Claims 1, 2, and 15. And for the '481, we're going to look  
09:13:28 18 at Claims 4 and 5. And -- and my professional opinion  
09:13:32 19 through the analysis that I've done is that Supercell  
09:13:34 20 directly infringes those claims.

09:13:40 21 Q. Okay. You have the patents in front of you, correct?

09:13:43 22 A. Yes.

09:13:43 23 Q. All right. So please explain to us what type of claims  
09:13:47 24 Claims 1, 2, and 15 are of the '137 patent.

09:13:50 25 A. Okay. If we can go to the next slide.

09:13:53 1 Q. Sure.

09:13:54 2 A. Thank you.

09:13:55 3 Q. Yeah.

09:13:56 4 A. So for -- I'm going to walk through Claim 1 and Claim  
09:14:01 5 14 together. Claim 1 is an independent claim, and Claim 14  
09:14:08 6 is an independent claim.

09:14:11 7 Now, my understanding, based on legal principles,  
09:14:14 8 is that they are similar. Claim 1 is what we call a  
09:14:19 9 systems claim, because it says a server connected to a  
09:14:24 10 terminal, so it's describing a system.

09:14:26 11 Claim 14 is what we call a method claim because it  
09:14:30 12 starts: A control method for a server connected to a  
09:14:34 13 terminal. So the language is going to be very similar, and  
09:14:38 14 the requirements are going to be very similar. One is a  
09:14:41 15 method claim. One is a system claim.

09:14:43 16 And so in the interest of time, the same evidence  
09:14:47 17 will meet both, and we're going to be walking through both  
09:14:52 18 claims in parallel.

09:14:53 19 Q. So -- but you said just a minute ago that Supercell  
09:14:57 20 infringes Claims 1, 2, and 15. Why are we looking at  
09:15:01 21 Claim 14?

09:15:02 22 A. So -- because when we look at Claim 15, Claim 15 will  
09:15:05 23 depend on Claim 14. So for the same reasons that if you  
09:15:09 24 have a dependent claim, you have to look at all the  
09:15:11 25 elements of the independent claim with the dependent claim.

09:15:16 1 MR. MOORE: Could we skip ahead, please,

09:15:19 2 Mr. Groat, to Slide No. 89?

09:15:21 3 Q. (By Mr. Moore) What are we showing here, Dr. Akl?

09:15:23 4 A. So this slide shows that Claim 2 is a dependent claim  
09:15:29 5 that depends on Claim 1. And Claim 15 is a Dependent Claim  
09:15:34 6 that depends on Claim 14.

09:15:36 7 So to show infringement for Claims 2 and 15, we  
09:15:41 8 have to walk through Claims 1 and 14. And, again, this is  
09:15:47 9 why we -- we walk through both in parallel because one is a  
09:15:50 10 system claim and one is a method claim for the same  
09:15:53 11 information.

09:15:53 12 Q. All right.

09:15:54 13 MR. MOORE: Please go back to Slide 60. Thank  
09:15:58 14 you.

09:15:58 15 Q. (By Mr. Moore) Now, you mentioned a moment ago about  
09:16:01 16 the difference in the beginning of the claim. Let's just  
09:16:04 17 start with Claim 1 for this -- for this purpose.

09:16:09 18 How does Supercell directly infringe the  
09:16:12 19 requirement that there is a server connected to a terminal  
09:16:16 20 device, et cetera, in this preamble of Claim 1?

09:16:18 21 A. Yes. So Supercell owns the servers. We've talked  
09:16:24 22 about the servers being on the East Coast and the West  
09:16:28 23 Coast that are going to be connected through Internet  
09:16:30 24 connection to terminal devices.

09:16:32 25 Those are the phones, for example, operated by a

09:16:36 1 player through a communication line -- that's the  
09:16:38 2 Internet -- to provide a game, including a pre-determined  
09:16:45 3 battle event, that's going to be the game in question --  
09:16:47 4 comprising at least one battle. So Supercell owns those  
09:16:52 5 servers that are going to practice the first limitation.  
09:16:56 6 Q. And what is the difference in terms of the evidence of  
09:17:00 7 Supercell's direct infringement for 14, which requires a  
09:17:04 8 control method for a server?

09:17:05 9 A. So Claim 14 states -- very similar language. It says:  
09:17:13 10 A control method for a server connected to a terminal  
09:17:16 11 device operated by a player, and it continues on. So  
09:17:19 12 Supercell owns the servers for Claim 1, and Supercell  
09:17:23 13 practices the methods to operate the servers.

09:17:26 14 So Supercell operates the servers and practices  
09:17:29 15 the method which are the games that then are connected  
09:17:36 16 through the Internet to the phones that also run the same  
09:17:39 17 version of the games and do battle.

09:17:43 18 Q. Do you have a video that illustrates the connection  
09:17:45 19 aspect of the game?

09:17:46 20 A. Yes.

09:17:47 21 Q. All right.

09:17:47 22 MR. MOORE: Let's, please, go to Plaintiff's  
09:17:51 23 Exhibit 142, and if you could play that video, please?

09:17:56 24 Q. (By Mr. Moore) And, Dr. Akl, could you please tell us  
09:17:58 25 what you're showing?

09:17:59 1 A. Yes. So when you start the game -- this is after you  
09:18:01 2 got in the splash screen. It's a lot of information, but  
09:18:05 3 what we're going to be looking at is battle.

09:18:08 4 So when you want to -- when you're ready to  
09:18:10 5 battle, you hit the button battle. And so what you see  
09:18:17 6 here -- and then it says on top: Searching for opponent.  
09:18:21 7 So -- and then the servers find an opponent, and then it  
09:18:23 8 starts the game.

09:18:25 9 Q. All right.

09:18:25 10 A. And -- and then I can start to play the game. So the  
09:18:29 11 searching for opponent is how I definitely know, including  
09:18:34 12 the source code and the communication that happens between  
09:18:37 13 the phone and the server, that it's meeting the claim  
09:18:42 14 language.

09:18:42 15 MR. MOORE: Could you go back to the beginning of  
09:18:43 16 that video, please? Thank you.

09:18:48 17 Q. (By Mr. Moore) All right. So, again, you are POW or  
09:18:51 18 P-O-W on the top left?

09:18:53 19 A. Yes.

09:18:54 20 Q. All right. And you've hit the battle button; is that  
09:18:57 21 right?

09:18:58 22 A. Yes.

09:18:58 23 Q. Just curious, what if you hit the party button?

09:19:01 24 A. It's a new mode. They're always coming out with  
09:19:05 25 different versions of the game and different ways to enjoy



09:19:07 1 the game and keep you engaged.

09:19:08 2 Q. All right. But for this purpose you're seeking to do  
09:19:11 3 battle with another player?

09:19:12 4 A. Yes.

09:19:13 5 MR. MOORE: All right. Could you please advance  
09:19:15 6 the video a little bit, Mr. Groat? I'll tell you when to  
09:19:19 7 pause it.

09:19:19 8 A. Pause.

09:19:20 9 MR. MOORE: Sorry, could you go back a little bit?  
09:19:22 10 There you go. Pause right there. Thank you.

09:19:24 11 Q. (By Mr. Moore) What are you showing here?

09:19:25 12 A. So this is where -- I'm going to be in blue, and red is  
09:19:32 13 going to be my opponent. So it's giving you a splash  
09:19:36 14 screen.

09:19:36 15 But more importantly, it's saying on top:  
09:19:38 16 Searching for opponent. So this is my phone and my game  
09:19:41 17 connected to Supercell's servers, and the server, trying to  
09:19:47 18 see who else hit the battle button on their phone, same  
09:19:51 19 time, and hopefully has a similar skill level and is going  
09:19:55 20 to try to match me with that opponent.

09:19:58 21 Now, I can cancel if I don't want to play before  
09:20:00 22 it matches, but once it matches, I can't cancel.

09:20:03 23 Q. Is the match -- strike that.

09:20:06 24 For your actions here where you hit battle, is the  
09:20:11 25 match random?

09:20:12 1 A. Oh, yes.

09:20:13 2 Q. Okay. And so, Super -- and what determines who your  
09:20:16 3 opponent is going to be?

09:20:17 4 A. So here the -- the server determines. So the server is  
09:20:21 5 what does the -- the determining of who your opponent is  
09:20:23 6 going to be.

09:20:24 7 Q. All right.

09:20:27 8 MR. MOORE: Let's play it, again, real quickly,  
09:20:31 9 and I'll tell you when to pause. All right. One second.  
09:20:34 10 All right. Now, pause. Oh. If you can just go to the end  
09:20:38 11 of it, I think. There we go. Yeah, before it starts  
09:20:45 12 playing a little bit more. A little bit further. There we  
09:20:52 13 go, right there. Thank you.

09:20:53 14 Q. (By Mr. Moore) All right. Now, what is this screen  
09:20:56 15 showing?

09:20:56 16 A. So this is showing you -- me, I'm POW. And it's  
09:21:00 17 showing me the player that the server matched me with,  
09:21:07 18 NachoCresp.

09:21:11 19 Q. Okay. How does the game start? How do you start the  
09:21:14 20 battle?

09:21:14 21 A. So you start the battle -- so it loads up, and then at  
09:21:17 22 the -- this is a resource management game. It's a  
09:21:20 23 strategic game where you want to -- you have a resource and  
09:21:23 24 your resource is called Elixir. That's the number that's  
09:21:27 25 going to start growing at the bottom -- grows in points.

09:21:31 1 And if I have enough points, enough Elixir --  
09:21:34 2 think of it as potion, as like, magic potion. If I have  
09:21:39 3 enough magic potion, then I can deploy a card or a spell,  
09:21:44 4 and the card can transform into a player character. And my  
09:21:50 5 player character can attack an enemy character.

09:21:52 6 Q. And what is the goal of the game?

09:21:54 7 A. The goal of the game is to defeat the opposing king.  
09:22:00 8 If you kill the king directly, you win. Or if you destroy  
09:22:07 9 all three towers, you also win.

09:22:09 10 So you can immediately attack the king, or usually  
09:22:12 11 if you attack one of the towers, you get an advantage, but  
09:22:17 12 the -- the purpose is to kill the other side or -- or do  
09:22:23 13 enough damage to the other side before -- before they do  
09:22:27 14 damage to you, so last man standing.

09:22:30 15 Q. All right.

09:22:31 16 MR. MOORE: Let's, please, go ahead and play the  
09:22:33 17 game.

09:22:33 18 Q. (By Mr. Moore) And illustrate the gameplay, if you  
09:22:36 19 would, as we go through.

09:22:37 20 A. So we can pause.

09:22:39 21 Okay. So this is the number at the bottom that I  
09:22:42 22 was referring to. This is your resource. And this is  
09:22:45 23 going to be a very important parameter. This is called  
09:22:51 24 Elixir. The maximum value is 10. And it grows, you know,  
09:22:55 25 1, 2, 3, 4, and the cards that you have, this is your game

09:22:59 1 content, they also have points. And I can only play a card  
09:23:05 2 if I have enough Elixir.

09:23:06 3 So if I do -- so right now I have 8 Elixir, and my  
09:23:10 4 cards are 4, 7, 4, 5, so I can play, for example, here.  
09:23:14 5 Sorry, let's look at the left. I can play any of these  
09:23:17 6 cards.

09:23:17 7 So they're all colored. None of them are grayed  
09:23:22 8 out. And the way you play them is I -- you know, I move it  
09:23:29 9 and I -- so I can like grab it, move it, and you let it go  
09:23:32 10 and it will deploy in your field and then it will attack.

09:23:40 11 Q. And is your opponent doing the same thing on their  
09:23:43 12 phone?

09:23:43 13 A. Yes.

09:23:44 14 Q. All right.

09:23:44 15 MR. MOORE: Let's show the -- let's show some of  
09:23:46 16 that, please. Please play the video.

09:23:50 17 A. So I move the card. This is the balloon card. It  
09:23:53 18 turns into a balloon. And now I have my player character  
09:23:58 19 moving along north and is going to start attacking.

09:24:02 20 Q. (By Mr. Moore) All right. I think we'll see a little  
09:24:04 21 more of that in a moment, but I just want to give that  
09:24:07 22 introduction.

09:24:07 23 So from what we've seen so far in your analysis,  
09:24:10 24 what is your conclusion about the preamble portions of  
09:24:15 25 Claims 1 and 14?

09:24:18 1 A. That -- that they're met. We have the server that's  
09:24:21 2 connected to the phone, and my movement -- so not only when  
09:24:25 3 you're searching for your opponent do you need to be  
09:24:27 4 connected but throughout the game, because anytime I move,  
09:24:31 5 that movement is going to be relayed to the server. And  
09:24:33 6 the server is going to be connected to the other player,  
09:24:36 7 and it's going to relay and reflect what I did the same way  
09:24:40 8 the server is going to take what the other player did and  
09:24:43 9 show it on my screen. This is not a peer-to-peer. You  
09:24:47 10 have to play through the server.

09:24:49 11 Q. What do you mean by peer-to-peer, what does that mean?

09:24:53 12 A. Peer-to-peer, for example, is, suppose you have two  
09:24:56 13 people in the same room and you can connect your devices  
09:24:59 14 directly to each other and you can play a multiplayer game  
09:25:04 15 with somebody on their device without having a third device  
09:25:07 16 being like a server.

09:25:10 17 So, for example, you know, Nintendo might have  
09:25:13 18 that option where, you know, someone can bring their  
09:25:16 19 switch, and you have your own switch, and the two switches  
09:25:18 20 can play each other. But you don't need a server.

09:25:21 21 That's peer-to-peer.

09:25:24 22 Q. Okay.

09:25:24 23 A. None of -- peer-to-peer is not -- none of the games  
09:25:28 24 here are peer-to-peer. They all have to go through a  
09:25:32 25 server.

09:25:32 1 Q. Thank you. All right. Let's move on to the next claim  
09:25:35 2 element -- I'm sorry, jumped ahead.

09:25:38 3 What does Element a of Claims 1 and 14 require?

09:25:41 4 A. An information storage device that stores information  
09:25:49 5 related to the game and the controller that assesses the  
09:25:51 6 information, performs computation on the game, and displays  
09:25:57 7 images of the game on the terminal device.

09:26:00 8 Q. How does Clash Royale -- strike that.

09:26:04 9 How does Supercell perform these claim elements  
09:26:07 10 using Clash Royale?

09:26:08 11 A. So both the server and the phone have and store  
09:26:15 12 information related to the game. You're playing it on your  
09:26:17 13 phone, and it's relayed to the server. Both the server and  
09:26:24 14 the phone have a controller that assesses that information  
09:26:30 15 and that performs computation of the game.

09:26:31 16 The server is looking and making sure you're --  
09:26:35 17 you're doing what you're supposed to be doing and relaying  
09:26:38 18 what you do to the other player and relaying what the other  
09:26:42 19 player is doing to you. And that information gets  
09:26:48 20 displayed on the game on the terminal device.

09:26:50 21 So the game will display what you do. And through  
09:26:53 22 the server, it will display what the other player is doing  
09:26:57 23 as you're playing.

09:26:58 24 Q. How does the server display images on the phone?

09:27:01 25 A. The server is going to take what the other player is

09:27:04 1 doing and send those commands to your phone so you know  
09:27:09 2 what the other player is attacking and how they're  
09:27:11 3 attacking. And the server is going to take your own  
09:27:14 4 movement and is going to relay it and reflect it to the  
09:27:17 5 other player.

09:27:18 6 Q. Okay. And, again, do we have a video to help  
09:27:21 7 illustrate these elements?

09:27:22 8 A. Yes.

09:27:25 9 Q. Go ahead and describe this, please.

09:27:27 10 A. So we started the game. It's loading. I -- I am going  
09:27:31 11 to start playing fight. I got my cards. I move them. I  
09:27:35 12 deploy them. And now I have my balloon.

09:27:39 13 So this is me doing the first movement. And you  
09:27:43 14 can kind of see that the other player also -- so this is my  
09:27:50 15 own player character, and you can see that the other player  
09:27:54 16 now is deploying something that's going to start coming  
09:27:58 17 down.

09:27:59 18 Q. All right. I think we cut that video a little too  
09:28:03 19 soon, perhaps. Let me fast forward to the next video, and  
09:28:07 20 then we'll come back to the next claim element.

09:28:09 21 MR. MOORE: Please play this continuation of  
09:28:12 22 Plaintiff's Exhibit 142.

09:28:13 23 Q. (By Mr. Moore) What's happening now?

09:28:15 24 A. Right. So here you see I'm -- I'm attacking. I'm in  
09:28:21 25 blue attacking the characters, the enemy in red. And, you

09:28:28 1 know, they're -- they're fighting. You see all the fire.  
09:28:30 2 They killed my troops. His enemy starts coming down. My  
09:28:35 3 tower starts defending, so there's a lot going on. And  
09:28:39 4 this is what makes it -- it's part of what makes it  
09:28:42 5 exciting.

09:28:43 6 But you are deploying and -- and at the same time  
09:28:46 7 I need to strategize. So depending on what they play, I  
09:28:52 8 need to look at my Elixir at the bottom. So now it says 4.  
09:28:56 9 And so you see because it says 4, the 5 is grayed out. So  
09:29:01 10 I can't play the 5. But I can play the 4. I can't play  
09:29:05 11 the 7. So the 7 card and the 5 card are grayed out. So I  
09:29:10 12 need to think about which card to play.

09:29:12 13 Q. Okay. Let's go back then, if we could, to the claim  
09:29:17 14 element. I just want to show the rest of that video. What  
09:29:20 15 is your conclusion about Element a of Claims 1 and 14?

09:29:23 16 A. That it is infringed by Supercell.

09:29:30 17 MR. MOORE: Let's go to Element b of Claims 1 and  
09:29:32 18 14.

09:29:33 19 Q. (By Mr. Moore) What does this element require?

09:29:34 20 A. Element b -- I'm going to read 1b: The information  
09:29:41 21 storage device holds, as part of the information related to  
09:29:43 22 the game, plural kinds of player characters and at least  
09:29:47 23 one kind of enemy character associated with the  
09:29:50 24 pre-determined battle event.

09:29:54 25 Q. And how does Clash Royale -- how does Supercell meet



09:29:59 1 these claim elements with Clash Royale?

09:30:02 2 A. So I kind of showed you the balloon would be an example  
09:30:06 3 of a player character that's attacking, and their flying  
09:30:10 4 minions are an example of the enemy characters coming down.

09:30:15 5 Q. All right. Let's watch this again, the same video we  
09:30:18 6 just saw.

09:30:19 7 MR. MOORE: Could you please play it again?

09:30:21 8 Q. (By Mr. Moore) And point out the player characters and  
09:30:24 9 the enemy characters.

09:30:25 10 A. So pause. Thank you.

09:30:26 11 This is an example of my player character. That's  
09:30:29 12 the one in blue. And this -- these are examples here in  
09:30:33 13 red. The things that are flying down are examples of enemy  
09:30:38 14 characters. They come down and they start flying down and  
09:30:41 15 moving.

09:30:41 16 And then I play my Baby Dragon. I have a Baby  
09:30:45 17 Dragon that I played down. That's another player  
09:30:48 18 character.

09:30:49 19 MR. MOORE: Right. Go ahead and resume the video,  
09:30:53 20 please.

09:30:53 21 A. So my Baby Dragon is -- is firing, it's in green, it  
09:30:57 22 turns blue.

09:30:59 23 And pause. Sorry.

09:31:04 24 Q. (By Mr. Moore) Go ahead and --

09:31:05 25 A. Yes. So the red here, the red are the enemy characters

09:31:09 1 and the blue are the player characters, and that's what  
09:31:12 2 meets the claim language.

09:31:13 3 Q. Thank you. And what is your conclusion, then, about  
09:31:21 4 Elements 1b and 14b?

09:31:23 5 A. That they are infringed by Supercell.

09:31:27 6 Q. Now, what is the next Element c, 1c and 14c, what does  
09:31:33 7 that require?

09:31:33 8 A. Information on a game content corresponding to each of  
09:31:38 9 the player characters.

09:31:39 10 Q. And did the Court construe any of the claim limitations  
09:31:43 11 in this element?

09:31:43 12 A. Yes.

09:31:44 13 Q. And what is that construction?

09:31:45 14 A. So the Court helped us out by providing a definition  
09:31:50 15 for game content, and the definition states: Contents or  
09:31:55 16 items capable of being held and managed by the player  
09:31:59 17 during the game, such as character cards, avatars, figures,  
09:32:05 18 names of player characters, nominal designations thereof,  
09:32:10 19 weapons, clothes, costumes, spells, magic, moves, or  
09:32:15 20 associated characters.

09:32:16 21 Q. Did you apply the Court's construction in your  
09:32:18 22 analysis?

09:32:19 23 A. Yes.

09:32:19 24 Q. And how does Clash Royale meet this game contents  
09:32:26 25 element under the Court construction?

09:32:27 1 A. So the -- the cards that I have meet the definition  
09:32:33 2 of -- of game content. So all these cards, they have  
09:32:37 3 statistics associated with them. When I deploy them, they  
09:32:41 4 become characters.

09:32:42 5 So this screen is not while I'm doing battle.  
09:32:45 6 This screen is when I am looking at my deck. So this is  
09:32:49 7 called battle deck. And these are all the game content  
09:32:53 8 that I've unlocked.

09:32:55 9 So this card here is, for example, Level 11. This  
09:32:59 10 is Level 12. This is my baby dragon, Level 11. I have  
09:33:03 11 arrows, Level 11. So all of these are examples of game  
09:33:09 12 content.

09:33:09 13 Q. Okay. And if we go back to -- one slide to the Court's  
09:33:12 14 construction, do you see the reference there to character  
09:33:15 15 cards?

09:33:15 16 A. Yes.

09:33:15 17 Q. Is that within what the Court has defined as being an  
09:33:18 18 example of game contents?

09:33:20 19 A. Yes.

09:33:22 20 Q. All right. Now, let's -- let's go forward. And would  
09:33:27 21 you please -- this is from Plaintiff's Exhibit 143?

09:33:29 22 MR. MOORE: Would you please play this video.

09:33:31 23 Q. (By Mr. Moore) And -- and explain what it's showing,  
09:33:34 24 Dr. Akl.

09:33:34 25 A. So I am looking at my game content. I'm going to

09:33:39 1 select a card. This is the balloon. And I'm going to hit  
09:33:42 2 info. And it's going to give me all the info like the  
09:33:47 3 amount of damage it can do. It will give me a little  
09:33:50 4 description about it. It's Level 12. And then I can close  
09:33:54 5 it and I can open another card.

09:33:55 6 So each card has attributes in terms of how much  
09:33:59 7 damage it can take, how much damage it can do, and what  
09:34:03 8 level -- the level for that card.

09:34:05 9 Q. And what is your conclusion, then, about Elements 1 and  
09:34:11 10 14c with respect to Supercell's infringement?

09:34:13 11 A. That they are -- that we do have information on a game  
09:34:17 12 content corresponding to each of the player characters.

09:34:20 13 Q. And what does Element d of Claims 1 and 14 require?

09:34:25 14 A. Element d requires a point set for each of the player  
09:34:30 15 characters and/or each of the game contents.

09:34:35 16 Q. What is that -- well, strike that.

09:34:37 17 How does Supercell infringe this element with  
09:34:39 18 Clash Royale?

09:34:40 19 A. So we can go to the next slide.

09:34:43 20 And there are different points associated with the  
09:34:47 21 card. Now, the point set for each character, as an  
09:34:51 22 example, is this number up here, the No. 5. That's the  
09:34:55 23 amount of Elixir or potion, for example, that I need to use  
09:35:01 24 that card. So that would be an example of how the claim is  
09:35:09 25 infringed by Supercell.

09:35:12 1 Q. All right. And so, the -- the points that are set for  
09:35:14 2 each of the characters or contents, you referred to that as  
09:35:19 3 the Elixir in Clash Royale; is that right?

09:35:21 4 A. Yes.

09:35:21 5 Q. All right. Are there any other examples of points for  
09:35:23 6 any of the player characters besides the Elixir cost?

09:35:27 7 A. Yeah, you can have -- like any of these can meet the  
09:35:30 8 language here. You have damage, you can have the -- the  
09:35:34 9 amount of hit points, hit speed, and so on. These all also  
09:35:40 10 can meet the set of points.

09:35:44 11 Q. So what is your conclusion as to Claim Element 1d and  
09:35:48 12 14d?

09:35:48 13 A. That Supercell infringes that element, and we've put  
09:35:53 14 checkmarks.

09:35:54 15 Q. And what does Claim Elements 1 and 14e require?

09:35:59 16 A. And information on an upper limit of a point set for  
09:36:05 17 the battle or the pre-determined battle event.

09:36:09 18 Q. And did the Court provide a construction for anything  
09:36:11 19 in this claim element?

09:36:12 20 A. Yes.

09:36:14 21 Q. And what did the Court -- what is the Court's  
09:36:18 22 construction --

09:36:20 23 MR. MOORE: Please go back one, Mr. Groat. Thank  
09:36:23 24 you.

09:36:23 25 Q. (By Mr. Moore) What is the Court's construction for

09:36:25 1 this claim element?

09:36:27 2 A. So the Court helped us out and provided a definition  
09:36:32 3 that says: An upper limit of a value that is set for the  
09:36:37 4 battle or the pre-determined battle event.

09:36:39 5 Q. And in Clash Royale -- well, first of all, did you  
09:36:43 6 apply that construction in your analysis?

09:36:45 7 A. Yes.

09:36:45 8 Q. And in Clash Royale, what is it that Supercell does  
09:36:48 9 that meets Claim Elements 1e and 14e as the Court has  
09:36:53 10 construed them?

09:36:54 11 A. It's going to be the meter at the bottom that's going  
09:36:58 12 to build. So my Elixir, right here, the No. 4, that's the  
09:37:01 13 upper limits where I cannot play game content unless I have  
09:37:09 14 the number of points.

09:37:10 15 So the upper limit in this case is -- is 4.

09:37:15 16 It's -- it's going to increase. It has a maximum limit of  
09:37:17 17 10. But at any point in time, I have a number that is  
09:37:22 18 provided at the bottom.

09:37:23 19 Q. All right. So is -- the upper limit is not 10, right,  
09:37:29 20 it's the current amount of the Elixir; is that correct?

09:37:31 21 A. Correct.

09:37:33 22 Q. Okay. And as you say, that will go up or down,  
09:37:36 23 depending on what the player does?

09:37:37 24 A. Yes.

09:37:37 25 Q. All right. And I jumped the gun a little bit and

09:37:40 1 started this video.

09:37:41 2 MR. MOORE: Could you please go back to the  
09:37:43 3 beginning and play the video here in Plaintiff's Exhibit  
09:37:45 4 142?

09:37:45 5 Q. (By Mr. Moore) And please show us what this video is  
09:37:47 6 illustrating, Dr. Akl.

09:37:49 7 A. So I play a card. They -- the resource from the card  
09:37:55 8 gets subtracted from the Elixir, so it goes back down to 1,  
09:37:59 9 and then it starts building again. Now it's at 1. Now at  
09:38:03 10 2.

09:38:03 11 So every time it hits a point, it kind of does a  
09:38:06 12 little splash. And now it's at 4. And I'm waiting. It's  
09:38:12 13 at 5. I want to play a better card. I'm waiting. So --  
09:38:17 14 and then I play, it gets subtracted, and it -- and then it  
09:38:21 15 starts building again.

09:38:22 16 So at any point in time, there is a limit, which  
09:38:25 17 is the value of that Elixir bar at the bottom.

09:38:30 18 Q. Okay. And what is your conclusion, then, for Element e  
09:38:34 19 of Claims 1 and 14?

09:38:35 20 A. That Supercell infringes those elements.

09:38:40 21 Q. All right. Now, there's -- there's still more of these  
09:38:44 22 claims, right?

09:38:45 23 A. Yes.

09:38:45 24 Q. All right. Let's look at that.

09:38:46 25 What are we showing here in terms of Element f for

09:38:51 1 Claims 1 and 14?

09:38:51 2 A. Element f: The controller displays a plurality of the  
09:39:00 3 game contents in a first field on the terminal device so  
09:39:05 4 that the player can select at least one desired game  
09:39:09 5 content from the plurality of the game contents to attack  
09:39:12 6 the enemy character in the pre-determined battle event.

09:39:16 7 Q. And how does Supercell infringe this claim element  
09:39:19 8 using Clash Royale?

09:39:21 9 A. Right. So we need to have the controller. This is --  
09:39:24 10 the controller can be in your phone or in the server.  
09:39:28 11 Displays the plurality of -- of game content.

09:39:31 12 This is what's at the bottom. In the first field.  
09:39:33 13 So the first field is the bottom in view where I see the  
09:39:36 14 cards on the phone, and the player can select at least one  
09:39:41 15 desired game content.

09:39:43 16 So the player has to select a card to attack. So  
09:39:46 17 we need to select to attack the enemy character -- select  
09:39:51 18 at least one desired game content to attack the enemy  
09:39:54 19 character.

09:39:54 20 So you need to be able to select to attack, and  
09:39:58 21 this is what we're going to see in the video.

09:40:00 22 We've already seen it, but this is -- we're  
09:40:03 23 walking through it again.

09:40:04 24 Q. All right.

09:40:05 25 MR. MOORE: Let's go to the video. Go ahead and



09:40:07 1 play it. I think this is the one that we've seen.

09:40:10 2 Q. (By Mr. Moore) But please explain how this video  
09:40:14 3 illustrates Supercell's infringement of Element f?

09:40:19 4 A. So by me grabbing, dragging, and deploying, for  
09:40:24 5 example, the card, I've selected to attack, because now  
09:40:26 6 it's -- this is my first field. This is the game content.

09:40:31 7 And I've deployed a card, and the -- so I've selected a  
09:40:35 8 card to attack by putting my finger on it, moving it,  
09:40:40 9 deploying it, and it's attacking the enemy character.

09:40:46 10 Q. All right. And so, what is your conclusion as to Claim  
09:40:54 11 Element f?

09:40:55 12 A. It is infringed by Supercell.

09:40:57 13 Q. Let's move on to g.

09:40:58 14 MR. MOORE: Please go -- thank you.

09:41:00 15 Q. (By Mr. Moore) What does Claim Element g require?

09:41:03 16 A. The controller permits the player to select the game  
09:41:06 17 contents when a sum of the points of the player characters  
09:41:09 18 and/or the game content selected by the player is less than  
09:41:15 19 or equal to the upper limit of the point.

09:41:19 20 Q. And how does Supercell infringe this claim element with  
09:41:26 21 Clash Royale?

09:41:27 22 A. So the controller, again, is the controller on the  
09:41:29 23 phone or on the server that prevents you or only allows you  
09:41:34 24 to select the card if the Elixir value of that card is less  
09:41:39 25 than or equal to the upper limit of the point.

09:41:42 1 So this is the number on the bar. As the number  
09:41:47 2 grows, I can select more cards, but we've already seen that  
09:41:50 3 I can only play a card if its value is less than or equal  
09:41:58 4 to the Elixir at the bottom.

09:42:00 5 Q. Okay.

09:42:00 6 MR. MOORE: And let's go to the video illustration  
09:42:02 7 for this element. This is, again, from Plaintiff's  
09:42:04 8 Exhibit 142. Please play that, Mr. Groat.

09:42:08 9 A. Yes.

09:42:08 10 Q. (By Mr. Moore) Please illustrate how this supports  
09:42:10 11 your opinion.

09:42:11 12 A. Okay. Pause. Thank you. Pause. Okay. Thank you.

09:42:17 13 So the controller -- the server and the phone are  
09:42:23 14 in control of which cards that's allowing me to permit me  
09:42:30 15 to play, depending on the -- the value has to be less than  
09:42:34 16 or equal to. So here we see these three are grayed out,  
09:42:39 17 and so I cannot deploy them. They won't -- I cannot select  
09:42:42 18 them to attack. They won't attack.

09:42:43 19 But No. 4, I can grab it, I can move it, and I can  
09:42:47 20 deploy it, and it can attack because the number is less  
09:42:50 21 than or equal to the 4 -- to this 4.

09:42:53 22 But the other numbers are 5, 5, 5, and 7. And so  
09:42:59 23 that's greater than 4, and I -- and I'm not permitted to  
09:43:04 24 select them to attack.

09:43:06 25 Q. Okay.

09:43:06 1 MR. MOORE: Go ahead and resume the video and let  
09:43:08 2 us know if you'd like to pause it at any other point.

09:43:12 3 A. So this is me moving a card, deploying it. I'm  
09:43:16 4 selecting that card to attack. And now the number is 2, so  
09:43:19 5 I can't play anything. I have to wait for my Elixir to  
09:43:23 6 recharge.

09:43:23 7 Q. (By Mr. Moore) And why -- just curious, why is that --  
09:43:27 8 you mentioned earlier, it's a resource allocation game and  
09:43:30 9 there's some strategy about how you use your deck. Why is  
09:43:33 10 that important in Clash Royale?

09:43:35 11 A. Because you can't just stand or display constantly  
09:43:41 12 cards. The whole point is you need to think about what  
09:43:44 13 card they play or what character -- what enemy character is  
09:43:48 14 flying down and then what enemy character is going to do a  
09:43:52 15 good job of attacking that. And I have a limited resource.  
09:43:57 16 That's my Elixir that does recharge. I get 1 point every  
09:44:01 17 2.8 seconds, but I need to manage which card I play.

09:44:06 18 So it makes the game more engaging by having this  
09:44:10 19 limit where I can just, you know -- just keep moving game  
09:44:15 20 content. I have to think about and strategize what card do  
09:44:19 21 I need to play. Do I wait for the meter to give me some  
09:44:22 22 more points? I see which cards I have. Or do I use my  
09:44:27 23 points now?

09:44:28 24 Q. Okay. Now, does Supercell -- well, first of all, what  
09:44:32 25 is your conclusion, then, about Claim Element g?

09:44:35 1 A. That it is infringed by Supercell.

09:44:38 2 Q. Now, do you have an understanding of whether Supercell  
09:44:40 3 and its experts dispute your -- your opinion on this point?

09:44:44 4 A. Yes.

09:44:45 5 Q. And what's your understanding about that?

09:44:47 6 A. So the -- there is a feature called Future Play. And  
09:44:53 7 what Future Play means -- what it does is -- see right here  
09:45:03 8 I have 3 points of Elixir, and so it's very close to coming  
09:45:07 9 to 4, so because you can have lag --

09:45:11 10 THE COURT: Just a minute.

09:45:13 11 MR. SACKSTEDER: I apologize, Your Honor. I don't  
09:45:14 12 think it's in his report.

09:45:15 13 THE COURT: So you're raising an objection?

09:45:17 14 MR. SACKSTEDER: I am. I object.

09:45:18 15 THE COURT: Do you have a response, Mr. Moore?

09:45:20 16 MR. MOORE: Yes, Your Honor. I think he's going  
09:45:23 17 to be rebutting what their arguments are, and I think he  
09:45:27 18 can address their non-infringement arguments and indicate  
09:45:31 19 why he dis -- he disagrees with them.

09:45:37 20 MR. SACKSTEDER: There's no supplemental report  
09:45:39 21 with this in it.

09:45:41 22 THE COURT: All right. Ladies and gentlemen, this  
09:45:43 23 is apparently an objection that I'm going to have to spend  
09:45:47 24 some time with counsel on. I see no reason to do it  
09:45:50 25 without letting you take advantage of an opportunity to

09:45:54 1 stretch your legs and get a drink of water.

09:45:56 2 MR. SACKSTEDER: Your Honor --

09:45:57 3 THE COURT: Yes.

09:45:58 4 MR. SACKSTEDER: I'm actually going to withdraw  
09:46:00 5 the objection. I apologize.

09:46:03 6 THE COURT: Sorry, ladies and gentlemen.

09:46:04 7 Objection is withdrawn. Let's continue with the  
09:46:06 8 direct examination then.

09:46:07 9 MR. MOORE: All right.

09:46:07 10 Q. (By Mr. Moore) Dr. Akl, why -- do you agree with  
09:46:11 11 Supercell's expert's view on this element?

09:46:13 12 A. No.

09:46:13 13 Q. Why not?

09:46:15 14 A. So what -- what Supercell claims is -- there is a  
09:46:20 15 feature called Future Play. And with Future Play,  
09:46:25 16 Supercell's expert, Mr. Friedman, he saw a video, and in  
09:46:29 17 the video he saw an animation. He did not look at source  
09:46:33 18 code.

09:46:33 19 What the video shows, it shows a player moving  
09:46:38 20 the -- for example, the 4 card, moving it here. And  
09:46:42 21 Supercell says, ah, you are playing the card before your  
09:46:48 22 Elixir hits 4. But that is, in fact, an incorrect  
09:46:54 23 conclusion, and I can tell you why.

09:46:58 24 Q. Well, first of all, before you do that, did you -- have  
09:47:00 25 you reviewed any source code that relates to how cards are

09:47:04 1 played, as well?

09:47:05 2 A. Yes.

09:47:06 3 Q. Okay.

09:47:06 4 A. I did.

09:47:07 5 Q. All right. And then -- so then why do you believe

09:47:09 6 that's incorrect?

09:47:09 7 A. So the -- the claim requires you to select to attack.

09:47:13 8 And the player -- it only allows you to grab something and

09:47:19 9 move it when you're very close to getting that Elixir.

09:47:21 10 So if the number -- this one is 7 and I only have

09:47:26 11 3 points, I cannot move the 7 card, but I can move the 4

09:47:30 12 card, and you place the 4 card here. The 4 card is not

09:47:33 13 ready to attack. It's still grayed out. And it will only

09:47:38 14 become ungrayed out when the number at the bottom is 4.

09:47:42 15 So, in fact, even with Future Play, you are still

09:47:46 16 infringing because you are not selecting to attack. You're

09:47:50 17 merely positioning your card to get it ready. But it won't

09:47:54 18 attack until the number on the card actually meets the

09:47:59 19 Elixir.

09:47:59 20 So you can't pre-attack. It's just a way to buy a

09:48:04 21 small feature. So if, for example, you're experiencing lag

09:48:08 22 or your Internet connection is slow, you don't want to lose

09:48:11 23 precious seconds moving a card after your Elixir where you

09:48:16 24 can.

09:48:17 25 So it allows you to kind of pre-move it, but we

09:48:20 1 are still within the language of the claim where you need  
09:48:26 2 to have the number be equal or less than your Elixir before  
09:48:29 3 you can select to attack because the card will remain  
09:48:32 4 grayed out and won't attack until the Elixir actually hits  
09:48:36 5 4.

09:48:36 6 Q. All right. So then what is your conclusion as to --  
09:48:40 7 whoops -- what is your conclusion as to Claim Element g of  
09:48:44 8 Claims 1 and 14?

09:48:45 9 A. That they do infringe even with Future Play.

09:48:49 10 Q. All right. And, again, you've seen source code  
09:48:52 11 relating to these issues, too?

09:48:53 12 A. Yes.

09:48:54 13 Q. All right. And, again, we'll -- we'll look at code  
09:48:56 14 later in the day.

09:48:57 15 Now, let's go on to what I can report is the last  
09:49:01 16 element of Claim 1 and 14.

09:49:03 17 What does this Element h require, Dr. Ak1?

09:49:07 18 A. The controller sequentially subtracts the point of the  
09:49:14 19 selected game content from the upper limit of the point and  
09:49:17 20 adds a pre-determined amount to the upper limit of the  
09:49:21 21 point at appropriate timing or restores the upper limit of  
09:49:25 22 the point.

09:49:26 23 Q. Okay. Now, did the Court construe any claim language  
09:49:30 24 in this claim element?

09:49:30 25 A. Yes.

09:49:33 1 Q. And what did it construe, and how did it do so?

09:49:37 2 A. Appropriate timing means at a pre-determined time.

09:49:41 3 Q. How does Supercell infringe Claim Element 1 and -- 1h  
09:49:48 4 and 14h using Clash Royale?

09:49:50 5 A. So if we go to the next slide.

09:49:54 6 Q. Sure.

09:49:55 7 A. So the -- the -- when you play a card, you have to  
09:50:02 8 subtract. So this number here gets subtracted. So the  
09:50:07 9 claim requires subtracting the point of the selected game  
09:50:11 10 content.

09:50:11 11 So when you've deployed a card -- for example, I  
09:50:17 12 deployed the 7 -- the value 7 gets subtracted from this  
09:50:23 13 number, and then you -- you then -- it builds again  
09:50:26 14 gradually, and then you go from -- you know, so I have 10  
09:50:29 15 points and I play the 7 card. It goes down to 3 right away  
09:50:33 16 the moment the card attacks. And then it starts building.  
09:50:36 17 Every 2.8 seconds I get another point.

09:50:41 18 And so the game using the Elixir value and the  
09:50:43 19 mechanics and looking at the source code infringes this  
09:50:47 20 element.

09:50:48 21 Q. And you understand -- let me go back to the claim, that  
09:50:53 22 it requires a sequence that sequentially subtracts and  
09:50:58 23 adds; is that correct?

09:50:58 24 A. Yes.

09:50:58 25 Q. And does that happen in Clash Royale?



09:51:01 1 A. Yes, the source code confirms that.

09:51:03 2 Q. All right. And, again, we'll look at the code a bit  
09:51:06 3 later?

09:51:06 4 MR. MOORE: But right now why don't we play the  
09:51:08 5 video, please? This is from Plaintiff's 142.

09:51:11 6 A. So I played the 5 card, it subtracts, and now I'm at 2.

09:51:16 7 MR. MOORE: Go ahead.

09:51:17 8 A. It's going to build, and so when you play a card, that  
09:51:20 9 value gets subtracted. So this is why it's a resource  
09:51:24 10 management, and then it builds again.

09:51:27 11 Q. (By Mr. Moore) Okay.

09:51:28 12 MR. MOORE: So can you please play the video  
09:51:31 13 again?

09:51:32 14 A. So, sorry, I played the 4 card. The baby dragon is 4.  
09:51:35 15 It subtracted 4. I had 5 points, it subtracted 4. The  
09:51:41 16 Elixir goes down to 1, and then goes back up and starts  
09:51:44 17 building to 2 points, 3 points and so on.

09:51:47 18 Q. Okay.

09:51:47 19 A. And so the moment you play a card, the value gets  
09:51:50 20 subtracted from your Elixir.

09:51:52 21 Q. All right. Now, I'd like to show you just because this  
09:51:56 22 moves fairly fast...

09:51:57 23 MR. MOORE: Mr. Groat, can you pull up -- well,  
09:51:59 24 we're on 142. I think you have a version though that we've  
09:52:05 25 slowed down a little bit. Could you please pull that up

09:52:09 1 and play that and zoom in on what's happening here.

09:52:12 2 Q. (By Mr. Moore) What is this video showing? Well,  
09:52:21 3 first of all, is this the same video?

09:52:22 4 A. No.

09:52:23 5 Q. Okay.

09:52:23 6 A. I mean, it's the same game.

09:52:25 7 Q. Okay.

09:52:25 8 A. But it's a different point in the video.

09:52:28 9 Q. All right. What is it showing?

09:52:29 10 A. So I'm playing my Night Witch, 4 points. And so it  
09:52:36 11 shows me once I've moved -- see the minus 4, the minus 4  
09:52:39 12 gets deducted from my points right away, and then I'm down  
09:52:43 13 and then it starts building again. And my card becomes the  
09:52:46 14 witch and the witch starts attacking.

09:52:48 15 Q. And then you've got a new card there?

09:52:50 16 A. Yes.

09:52:50 17 Q. Is that the baby dragon that came in?

09:52:51 18 A. Yes.

09:52:52 19 Q. All right. Now, again --

09:52:55 20 MR. MOORE: Thank you, Mr. Groat. If you can  
09:52:57 21 please go back to the slides. Thank you.

09:53:01 22 Q. (By Mr. Moore) So what is your conclusion about Claim  
09:53:05 23 Element h of Claims 1 and 14?

09:53:07 24 A. That it is infringed by Supercell.

09:53:09 25 Q. And, again, we have some source code you'll look at

09:53:13 1 later on this element; is that right?

09:53:15 2 A. Yes.

09:53:16 3 Q. Okay. Now -- now that we've looked at the independent  
09:53:20 4 Claims 1 and 14, what do we have to do next for the '137  
09:53:24 5 patent?

09:53:24 6 A. We have to look at Claims 2 and 15, and we're also  
09:53:27 7 going to walk through them in parallel.

09:53:29 8 Q. And why are you walking through them in parallel?

09:53:31 9 A. Because they're very similar. Claim 2 is a system  
09:53:35 10 claim. And Claim 15 is a method claim for how the system  
09:53:39 11 should behave and practice the infringement -- or the  
09:53:43 12 method.

09:53:43 13 Q. And how does Supercell require these additional --  
09:53:46 14 sorry. Let me start again.

09:53:48 15 How does Supercell infringe the additional  
09:53:52 16 requirements of these Claims 2 and 15?

09:53:55 17 A. Okay. So I'm going to read Claim 2. The server  
09:53:58 18 according to Claim 1 -- so as we said it's a dependent  
09:54:02 19 claim -- wherein when the player selects the desired game  
09:54:07 20 content from the game contents displayed in the first  
09:54:11 21 field, the control unit removes the game content selected  
09:54:15 22 by the player from the first field and updates the first  
09:54:22 23 field with a new game content alternative to the removed  
09:54:26 24 game content.

09:54:26 25 Q. How does Supercell infringe this claim element -- or

09:54:30 1 these claims, I should say?

09:54:31 2 A. Let's stay on this slide for just a second because it's  
09:54:34 3 a lot of words.

09:54:37 4 Q. Okay.

09:54:37 5 A. So when the player selects the game content, you're  
09:54:39 6 selecting a card from the bottom. That's your first field.  
09:54:42 7 The controller removes the game content. You see it's  
09:54:44 8 removed from the first field. And then it updates the  
09:54:46 9 first field with a new game content, which means if you get  
09:54:51 10 another card in its place at the bottom in the first field  
09:54:56 11 alternative to the removed game content, you've met this  
09:55:00 12 claim language. And we can see it in the video.

09:55:02 13 Q. And before we go to this video, the last video we saw,  
09:55:05 14 the one where we blew up the sections we saw you play the  
09:55:08 15 Night Witch and then you got the Baby Dragon, is that an  
09:55:12 16 example of what you're talking about here?

09:55:15 17 A. Yes, that's what we looked at.

09:55:15 18 Q. All right. Let's look at the video we have for this as  
09:55:16 19 well.

09:55:16 20 MR. MOORE: Can you please play that for  
09:55:18 21 Dr. Akl --

09:55:19 22 Q. (By Mr. Moore) And illustrate what it shows?

09:55:20 23 A. Okay. So I'm waiting for my Elixir to hit a number  
09:55:24 24 that I can play a card. It hit 4. So I played the 4 card,  
09:55:28 25 this is my Night Witch.

09:55:32 1 And now I get another card here. So I get a card  
09:55:33 2 to replace it, and then it lights up again when the  
09:55:35 3 number -- when I can play it again, but that's the -- the  
09:55:38 4 fact that it's replaced a card that I've played with  
09:55:42 5 another card that's different as an alternative, that meets  
09:55:44 6 the claim language.

09:55:45 7 Q. All right. And one thing I wanted to point out --

09:55:49 8 MR. MOORE: If you could play the video again.  
09:55:53 9 Get to where after you played the card.

09:55:55 10 Q. (By Mr. Moore) You see how the grayed-out cards have  
09:55:58 11 this little -- almost like a secondhand moving around them?

09:56:01 12 A. Yes.

09:56:02 13 MR. MOORE: Let's show that again, please. Thank  
09:56:04 14 you.

09:56:04 15 Q. (By Mr. Moore) What is that?

09:56:05 16 A. This is just -- this is showing you -- so right here,  
09:56:10 17 you see it looks like a little clock that's grayed out more  
09:56:16 18 than another. This is just telling you that once this  
09:56:22 19 lightly grayed area fills, it's keeping a timer.

09:56:27 20 So right here you see it's grayed, but it's kind  
09:56:30 21 of -- it's going to like fill up because right now this  
09:56:34 22 card is 7, but I only have 5. So once the number 5 hits 7,  
09:56:39 23 it's going to match the filling up of this gray area.

09:56:42 24 So if you want to play it again, maybe I can  
09:56:46 25 narrate it.

09:56:47 1 Q. What does that allow you to do once it's matched up?

09:56:51 2 A. Once it's matched up, it's allowing you to select it to  
09:56:54 3 attack, but I can before.

09:56:55 4 Q. Does it allow you to drag it into the field at that  
09:56:58 5 point?

09:56:58 6 A. Yes. So you can drag it, you can deploy it, you can  
09:57:01 7 move it and drag it and replace it.

09:57:04 8 MR. MOORE: Okay. Thank you. And play the video,  
09:57:07 9 please.

09:57:07 10 A. So, pause. Thank you.

09:57:08 11 So now you see this resets like the -- the --  
09:57:15 12 because I played a different card and I went now back to 3,  
09:57:18 13 and so I need four more points, this white area is a lot  
09:57:23 14 because it's showing me that it's going to be a little bit  
09:57:26 15 of time before I can play these cards because these are 5,  
09:57:30 16 5, and 7, but this card is 4.

09:57:33 17 So the white area is a little less on this card  
09:57:36 18 because this card I will be able to play the 4 card before  
09:57:41 19 the -- the -- that game content. I can play it before the  
09:57:44 20 other two. So it's just another visualization of when you  
09:57:48 21 can play game content and deploy it to attack.

09:57:54 22 Q. (By Mr. Moore) Okay. Thank you.

09:57:56 23 Now, does this complete your analysis for the '137  
09:58:01 24 patent claims?

09:58:01 25 A. Yes.

09:58:02 1 Q. And what is your conclusion as to the '137 patent?

09:58:05 2 A. It is infringed by Supercell.

09:58:07 3 Q. And --

09:58:10 4 A. The asserted claims are infringed by Supercell.

09:58:11 5 Q. Which claims are those?

09:58:13 6 A. 1, 2, and 15.

09:58:17 7 Q. Thank you.

09:58:17 8 All right. Now, let's go to the second-- sorry,  
09:58:21 9 here we go. You've checked off 2 and 15. And, again, did  
09:58:25 10 you look at source code for Claims 2 and 15?

09:58:28 11 A. Yes.

09:58:28 12 Q. Okay. Now, let's go to the next -- the second of the  
09:58:32 13 two battle patents, which is the -- the '481 patent. Is --  
09:58:42 14 are the claims in the '481 patent similar or related in any  
09:58:47 15 way to the claims in the '137 patent?

09:58:52 16 A. Yes, they are.

09:58:54 17 Q. How so?

09:58:54 18 A. So there is a lot of language that's going to be  
09:58:58 19 similar to the claim in the '137. So in the interest of  
09:59:00 20 time, I'm going to show you that similarity and show you  
09:59:02 21 the evidence that we already looked at so that we can move  
09:59:07 22 and concentrate on the elements that we haven't looked at  
09:59:09 23 yet. But we still need to show that all the elements are  
09:59:12 24 met.

09:59:12 25 Q. All right. Now, the begin -- what is the beginning of

09:59:17 1 '481 patent, Claim 1?

09:59:18 2 A. A terminal device comprising.

09:59:20 3 Q. Okay. And actually let me orient ourselves.

09:59:25 4 I think for the '481 patent, your -- let me pull  
09:59:31 5 it up here.

09:59:35 6 THE COURT: Let me interrupt right now, counsel.

09:59:37 7 MR. MOORE: Yes, Your Honor.

09:59:38 8 THE COURT: I think this is as good a point as any  
09:59:41 9 for us to take a morning recess.

09:59:43 10 So we're going to pause at this point, ladies and  
09:59:47 11 gentlemen of the jury. I'm going to ask you simply to  
09:59:49 12 leave your notebooks closed and in your chairs. We're  
09:59:54 13 going to take about 10 or 12 minutes for a recess at this  
09:59:59 14 point.

09:59:59 15 Follow all the instructions I've given you,  
10:00:01 16 including not to discuss the case among each other or with  
10:00:05 17 anyone.

10:00:05 18 Take this time to get a drink of water, visit the  
10:00:09 19 restroom, walk around a bit, and we'll be back in here  
10:00:12 20 shortly to continue.

10:00:13 21 The jury is excused for recess.

10:00:16 22 COURT SECURITY OFFICER: All rise.

10:00:16 23 (Jury out.)

10:00:17 24 THE COURT: The Court stands in recess.

10:20:55 25 (Recess.)



10:20:58 1 (Jury out.)

10:20:59 2 COURT SECURITY OFFICER: All rise.

10:20:59 3 THE COURT: Be seated, please.

10:21:36 4 Are you prepared to continue with your  
10:21:42 5 examination, Mr. Moore?

10:21:43 6 MR. MOORE: Yes, Your Honor.

10:21:44 7 THE COURT: You may return to the podium.

10:21:45 8 MR. MOORE: Thank you.

10:21:50 9 THE COURT: Let's bring in the jury, please,  
10:21:54 10 Mr. Fitzpatrick.

10:21:58 11 COURT SECURITY OFFICER: Yes, sir.

10:22:02 12 (Jury in.)

10:22:04 13 THE COURT: Please be seated.

10:22:22 14 We'll continue with the Plaintiff's direct  
10:22:24 15 examination of the witness, Dr. Robert Akl.

10:22:27 16 Mr. Moore, you may proceed.

10:22:29 17 MR. MOORE: Thank you, Your Honor.

10:22:29 18 Q. (By Mr. Moore) Welcome back, Dr. Akl.

10:22:34 19 When we broke, we were just starting to talk about  
10:22:39 20 the '481 patent, the second of the two battle patents.  
10:22:42 21 So -- and I had asked you to please describe the very  
10:22:48 22 beginning of the claim, which reads a terminal device  
10:22:51 23 comprising.

10:22:51 24 What does that relate to?

10:22:53 25 A. It relates to the cell phone.

10:22:56 1 Q. And so, does Supercell directly infringe this element  
10:23:00 2 of the claim?

10:23:01 3 A. Yes.

10:23:01 4 Q. How?

10:23:02 5 A. By having their games run on the phones.

10:23:08 6 Q. And how is that enough for Supercell itself to directly  
10:23:14 7 infringe this part of the claim?

10:23:15 8 A. Because it's -- the -- the servers also communicate  
10:23:20 9 with the phone, and the servers instruct the phones to run  
10:23:24 10 the games.

10:23:27 11 Q. Okay. And when they instruct the phones to run the  
10:23:30 12 games, what is it on the phones that they are instructing?

10:23:34 13 A. The -- the -- the games in question here. So there's  
10:23:38 14 instructions on the phone that come from the server how the  
10:23:41 15 game plays, the game mechanics.

10:23:46 16 Q. Is Supercell's source code on a player's phone if  
10:23:49 17 they've got these games on the phone?

10:23:50 18 A. Yes.

10:23:50 19 Q. Okay. And how do the servers interact with that source  
10:23:54 20 code that's on the phone from Supercell?

10:23:55 21 A. There are messages that go between the source code on  
10:23:58 22 the phone and the source code on the servers.

10:24:03 23 Q. Okay. Let's move forward.

10:24:06 24 All right. And so, is that enough -- well, strike  
10:24:11 25 that.

10:24:11 1 What is your opinion, then, about the very  
10:24:14 2 beginning of Claim 1 of the '481 patent?

10:24:16 3 A. That it's met by Supercell.

10:24:18 4 Q. Okay. And I think I neglected to do one thing, which  
10:24:21 5 is to ask you what type of a claim is the '481 patent,  
10:24:24 6 Claim 1?

10:24:25 7 A. This is a system claim.

10:24:30 8 Q. And, I'm sorry, is -- you recall testimony about  
10:24:34 9 independent and dependent claims?

10:24:36 10 A. Yes.

10:24:36 11 Q. What type of claim is this?

10:24:37 12 A. It's an independent claim.

10:24:41 13 MR. MOORE: Now, could you -- Mr. Groat, could you  
10:24:43 14 please go earlier in the slides to Slide No. 7? And go  
10:24:47 15 ahead and click all the way through. Thank you.

10:24:54 16 Q. (By Mr. Moore) Now, the claims you're going to be  
10:24:56 17 providing infringement opinions for the '481, which are  
10:24:59 18 those?

10:24:59 19 A. Claims 4 and 5 of the '481.

10:25:04 20 Q. All right. And so why do we need to talk about  
10:25:06 21 Claim 1?

10:25:07 22 A. Because Claim 4 depends on Claim 1, so we have to walk  
10:25:12 23 through all the elements of Claim 1 before we can -- to  
10:25:15 24 show infringement, before we get to Claim 4.

10:25:17 25 Q. And does 5 -- what about Claim 5, what type of claim is

10:25:21 1 that?

10:25:22 2 A. It's also a dependent claim.

10:25:23 3 Q. And what does it depend on?

10:25:25 4 A. Either 1 or 4, I have to check.

10:25:28 5 Q. Okay. Yeah, would you please, if you have your binder

10:25:30 6 in front of you, just confirm for us from the '481 patent,

10:25:35 7 Claim 5, what does that relate to?

10:25:37 8 A. Claim 5 states the terminal device according to

10:25:40 9 Claim 1. So both Claims 4 and 5 depend on Claim 1.

10:25:44 10 Q. Okay. All right. So let's go back then to the slide

10:25:47 11 that we were on, which I think was 94.

10:25:53 12 MR. MOORE: A little bit ahead actually. There we

10:25:56 13 go.

10:25:56 14 Q. (By Mr. Moore) All right. So then we're -- let's go

10:25:58 15 through Claim 1. Do you have a way to abbreviate this

10:26:03 16 analysis in view of the similarity between the two battle

10:26:07 17 patents?

10:26:07 18 A. Yes, but before I do -- but we have to look at claim

10:26:10 19 construction.

10:26:10 20 Q. Right. Okay. And, yes, thank you.

10:26:13 21 So why are you grouping the elements under

10:26:16 22 Element a here together?

10:26:17 23 A. So Element a is pretty long, but a lot of what's in (a)

10:26:26 24 we've already walked through for Claim 1 in the '137

10:26:29 25 patent. So I've prepared a table showing how these

10:26:32 1 elements are the same and the evidence is the same, to save  
10:26:37 2 some time.

10:26:38 3 Q. All right. And thank you for reminding me about the  
10:26:40 4 constructions. Are there claims that the Court has  
10:26:43 5 construed in this grouping you've -- of claim elements  
10:26:48 6 under 1a?

10:26:49 7 A. Yes, there are two.

10:26:50 8 Q. Okay. And what constructions are those?

10:26:51 9 A. So game content means content on items capable of being  
10:26:56 10 held and managed by the player during the game, such as  
10:26:59 11 character cards, avatars, figures, names of player  
10:27:04 12 characters, nominal designations thereof, weapons, clothes,  
10:27:08 13 costumes, spells, magic, moves, or associated characters.

10:27:12 14 Q. Is that the same construction for game contents that  
10:27:15 15 you already looked at in the '137 patent?

10:27:17 16 A. Yes, it's the same one.

10:27:19 17 Q. What is the second term that the -- that the Court  
10:27:24 18 provided a construction for?

10:27:25 19 A. Information on a third parameter value means  
10:27:29 20 information on an upper limit of a value for the  
10:27:31 21 pre-determined battle event.

10:27:33 22 Q. Did you apply these constructions in your infringement  
10:27:35 23 analysis?

10:27:37 24 A. I did.

10:27:37 25 Q. All right. With that, let's move to the chart you

10:27:42 1 referenced.

10:27:43 2 What is this slide showing, Dr. Akl?

10:27:45 3 A. So the column on the left is the first part of Claim 1  
10:27:51 4 of the '481, and I've broken down into (i), (ii), (iii),  
10:27:56 5 (iv), and (v).

10:27:57 6 And then the middle column are elements of the  
10:28:03 7 '137 patent, Claim 1, that we've already looked at and  
10:28:08 8 walked through in detail. And then the column on the right  
10:28:10 9 is the evidence that we also looked at with regard to Clash  
10:28:16 10 Royale, and what infringes.

10:28:17 11 Q. Have we already seen -- has the jury already seen all  
10:28:22 12 the evidence upon which you rely for the '481 patent,  
10:28:29 13 Claim 1, the grouping at Element a?

10:28:31 14 A. Yes.

10:28:31 15 Q. All right. Let's just walk through -- if you would  
10:28:34 16 briefly explain each of them. What evidence has the jury  
10:28:36 17 seen that relates to the storage unit element highlighted  
10:28:39 18 in blue?

10:28:40 19 A. So 1a is a storage unit that stores as part of  
10:28:46 20 information related to the game -- I was reading this. We  
10:28:50 21 saw this already in Claim 1b, and it's the server and the  
10:28:55 22 memory on the server and the memory on the phone.

10:29:01 23 MR. MOORE: Let's go to the next one.

10:29:04 24 Q. (By Mr. Moore) Little -- (i) there. What evidence has  
10:29:07 25 the jury already seen that meets this element?

10:29:09 1 A. So (i) is information on plural kinds of player  
10:29:15 2 characters and at least one kind of enemy character  
10:29:18 3 associated with a pre-determined battle event. We already  
10:29:22 4 saw this also in Element b of Claim 1 of the '137. And  
10:29:28 5 these are the troops that are displayed in the game.

10:29:33 6 So when you have character that becomes a player  
10:29:37 7 character or an enemy character, that meets that claim  
10:29:37 8 language.

10:29:42 9 Q. Okay.

10:29:42 10 MR. MOORE: Let's go to the next one.

10:29:44 11 Q. (By Mr. Moore) Little -- (ii) information on a game  
10:29:48 12 content. What evidence have we already seen from the '137  
10:29:51 13 patent that meets that claim element?

10:29:52 14 A. So information on game content corresponding to the  
10:29:56 15 player characters. We saw this in Claim 1 of the '137,  
10:30:02 16 Element c, and the -- we looked at, as far as the Clash  
10:30:06 17 Royale game, the game contents like the guards represent  
10:30:10 18 the troops and the deck that you have.

10:30:13 19 Q. The next one, (iii), what have we seen for this claim  
10:30:20 20 element from the '137 patent evidence?

10:30:23 21 A. So here, the evidence is the same but the claim  
10:30:30 22 introduces the term "first parameter." So we have  
10:30:33 23 information on a first parameter value related to the  
10:30:37 24 battle of each of the player characters and/or each of the  
10:30:42 25 enemy characters. We looked at -- that's met by, for

10:30:45 1 example, hit points which we saw in Claim 1, Element d,  
10:30:48 2 where the points associated with the player characters and  
10:30:53 3 the game content.

10:30:54 4 Q. Did we see that on that balloon card that we looked at?

10:30:57 5 A. Yes.

10:30:57 6 Q. Okay. Let's go to the next one, number (iv). Why do  
10:31:01 7 you not have a corresponding language from Claim 1 of the  
10:31:05 8 '137 for this one?

10:31:05 9 A. So (iv) is information on a second parameter value for  
10:31:12 10 each of the player characters and/or each of the game  
10:31:15 11 content. We already saw it as the Elixir point cost, but  
10:31:19 12 it wasn't explicitly stated in Claim 1 where it required a  
10:31:25 13 second parameter.

10:31:26 14 So the difference here, we're going to see at  
10:31:31 15 least for what we're going through, there's a first  
10:31:32 16 parameter, second parameter, and third parameter. And so  
10:31:34 17 for second parameter, those call-outs weren't explicit, but  
10:31:39 18 the evidence is the same.

10:31:40 19 Q. And when you say Elixir point cost, what are you  
10:31:42 20 referring to?

10:31:42 21 A. This is the -- on the card, that number, that's how  
10:31:49 22 many Elixir points you need to be able to use that card.

10:31:52 23 Q. And, finally, number (v), what -- what does this claim  
10:31:58 24 element require and what evidence has the jury already seen  
10:32:02 25 about that claim element?



10:32:03 1 A. Information on a third parameter value for the  
10:32:05 2 pre-determined battle event. The third parameter value is  
10:32:08 3 met by the current points of Elixir at the bottom of the  
10:32:13 4 field. This is in the game, the Elixir point that you can  
10:32:19 5 use at one point in time which we already saw in Claim 1 of  
10:32:23 6 the '137, Element d -- sorry, Element e.

10:32:27 7 Q. Right. And as we saw from the Court's construction --  
10:32:33 8 well, strike that.

10:32:33 9 How does that evidence of the current points of  
10:32:36 10 Elixir meet the Court's construction for this element?

10:32:38 11 A. It is -- so if we -- the Court's construction says  
10:32:42 12 information on an upper limit of the value for the  
10:32:45 13 pre-determined battle event. And it's -- it's the upper  
10:32:51 14 limit that you have at any point in time in the game. So  
10:32:53 15 it's -- it meets the Court's claim construction, and the  
10:32:56 16 source code and the game confirm that.

10:32:58 17 Q. Does that take care, then, of this grouping as  
10:33:03 18 Element a?

10:33:03 19 A. Yes.

10:33:04 20 Q. What is your conclusion about that element?

10:33:06 21 A. That it's met. If we go to the next slide, I'm going  
10:33:10 22 to put a checkmark for all of Element a that Supercell  
10:33:14 23 infringes Claim 1 of the '481 patent, Element a.

10:33:17 24 Q. And what does Element b require?

10:33:20 25 A. Element b requires a display processing unit that

10:33:25 1 displays a plurality of the game contents in a first field  
10:33:30 2 on a game image in the pre-determined battle event.

10:33:33 3 Q. How does Supercell infringe this claim element?

10:33:36 4 A. So the -- the display processing unit and the first  
10:33:43 5 field, we already saw that's the bottom part of the battle  
10:33:46 6 where you have your cards lined up.

10:33:48 7 Q. All right. And what are we showing here?

10:33:50 8 A. This is the first field, which we already saw. This --  
10:33:57 9 this part of the game infringes, having a first field and  
10:34:01 10 displaying it.

10:34:02 11 Q. So what is your conclusion on Element 1b?

10:34:06 12 A. That it is met by the game having a multiple game  
10:34:12 13 contents displayed in a first field. So Supercell  
10:34:15 14 infringes Claim 1, Element b.

10:34:18 15 Q. What does Claim 1, Element c, require?

10:34:21 16 A. An input receiving unit that receives a selection of at  
10:34:25 17 least one desired game content to attack the enemy  
10:34:29 18 character from the plurality of the game contents.

10:34:33 19 Q. How does Supercell infringe Element c with Clash  
10:34:36 20 Royale?

10:34:36 21 A. So you need to receive an input. That's the user  
10:34:44 22 moving and grabbing and moving the card to -- to deploy it.  
10:34:49 23 They are meeting the language selection to -- the selection  
10:34:53 24 of the game content to attack the enemy character. And the  
10:34:57 25 input is my finger on the touchscreen.

10:34:59 1 Q. And what are you showing here on this next slide?

10:35:01 2 A. So I'm showing how by me selecting, grabbing, and  
10:35:08 3 moving and releasing and deploying the card, that's meeting  
10:35:11 4 that claim language.

10:35:11 5 Q. And the phones on which you played the games, do those  
10:35:17 6 have touchscreens?

10:35:19 7 A. Yes. It doesn't have to be a touchscreen. It just has  
10:35:23 8 to be any input, but in this case it is.

10:35:25 9 Q. All right. But -- all right. Thank you.

10:35:27 10 And so what is your conclusion about Claim 1,  
10:35:30 11 Element c?

10:35:31 12 A. My conclusions, the -- the input is met in here by the  
10:35:35 13 touchscreen, so the Supercell infringes Element c of  
10:35:38 14 Claim 1.

10:35:39 15 Q. Now, let's look to Claim 1, Element d, and this is a  
10:35:43 16 little bit longer one. What does this one require?

10:35:46 17 A. A control unit that removes the game content selected  
10:35:48 18 by the player from the first field, updates the first field  
10:35:52 19 with a new game content alternative to the removed game  
10:35:56 20 content, and then sequentially subtracts the second  
10:36:03 21 parameter value of the selected game content from the third  
10:36:07 22 parameter value, and adds a pre-determined amount to the  
10:36:10 23 third parameter value at appropriate timing.

10:36:13 24 Q. Did the Court enter any claim constructions for this  
10:36:19 25 element?

10:36:19 1 A. Yes.

10:36:20 2 Q. And what is the claim construction?

10:36:21 3 A. At the appropriate timing means at a pre-determined  
10:36:24 4 time.

10:36:25 5 Q. Now, is this particular Element 1d similar to any of  
10:36:30 6 the language in the '137 patent claims that we looked at?

10:36:34 7 A. Yes, we already saw all of the language.

10:36:37 8 Q. And where did we see it?

10:36:39 9 A. So we need the controller that removes the game  
10:36:42 10 content, this is when -- you move it when you play it -- it  
10:36:45 11 updates the first field, so it gives you a new card. We  
10:36:48 12 already saw this for Claim 2 of the '137.

10:36:50 13 Q. And are you relying on the same evidence that the jury  
10:36:53 14 already saw for Claim 2 of the '137 for this portion of  
10:36:57 15 Claim 1, Element d of the '481?

10:37:01 16 A. Yes, I am.

10:37:01 17 Q. Now, what is the next part of Claim 1, Element d of the  
10:37:05 18 '481, and what is it similar to in the '137?

10:37:07 19 A. So the next part you need to sequentially subtract the  
10:37:13 20 second parameter. The second parameter is the Elixir value  
10:37:17 21 on the card of the selected game content from the third  
10:37:20 22 parameter. The third parameter is the Elixir value on the  
10:37:23 23 bottom. That's the one that increases.

10:37:25 24 So you subtract it, and then you add a  
10:37:27 25 pre-determined amount to the third parameter. So the

10:37:30 1 Elixir at the bottom gets subtracted when you play a card,  
10:37:34 2 and then it increases, again, which we already saw in  
10:37:41 3 Claim 1h of the '137.

10:37:45 4 Q. And I think you said that each point is added at a  
10:37:48 5 certain number of seconds in the game?

10:37:50 6 A. Yes, 2.8 seconds you get another point.

10:37:53 7 Q. So what is your conclusion, then, about Claim 1,  
10:37:57 8 Element d of the '481 patent based on the evidence we've  
10:38:02 9 already seen?

10:38:03 10 A. Supercell infringes that element.

10:38:09 11 Q. Let's move on then to Claim 1, Element e, what does  
10:38:13 12 this element require, Dr. Akl?

10:38:16 13 A. The display processing unit displays the corresponding  
10:38:20 14 first parameter value together with at least one of the  
10:38:24 15 player character and the enemy character on the second  
10:38:26 16 field of the display of the game.

10:38:28 17 Q. How does Supercell infringe this element?

10:38:29 18 A. So the -- the first parameter value was, for example,  
10:38:34 19 the hit points, your health, how much hit points a  
10:38:36 20 character can take. We need to display that with at least  
10:38:39 21 one player character.

10:38:40 22 So when you play a character, it needs to be  
10:38:43 23 displayed in a second field, and that's going to be the  
10:38:45 24 battle area on top. So if we go to the next slide, I'll --  
10:38:48 25 I'll map it all.

10:38:49 1 Q. Okay. Go ahead.

10:38:51 2 A. So the -- this point here in blue, the little bar, on  
10:38:56 3 top of your character, that's your hit points. This is  
10:38:58 4 your health bar, in essence.

10:39:01 5 You also have a red one for the enemy character.  
10:39:03 6 It's in the second field. This area is the second field.  
10:39:07 7 The bottom area is the first field.

10:39:10 8 And so the game meets all the elements. We have a  
10:39:16 9 display that's processing the corresponding first  
10:39:20 10 parameter. So all the elements of that element are met and  
10:39:23 11 infringed by Supercell.

10:39:26 12 MR. MOORE: Mr. Groat, is it possible to blow up  
10:39:29 13 the slide a little bit so we can see the dragon and the  
10:39:31 14 other character, to zoom in a little bit on that? There we  
10:39:35 15 go. Can you -- all right. It makes it a little easier to  
10:39:38 16 see.

10:39:38 17 Q. (By Mr. Moore) Where do you see the hit points for the  
10:39:41 18 dragon and whatever that enemy character is?

10:39:43 19 A. So you see here there's the number, and the bar  
10:39:46 20 representation, and there's the number and the bar  
10:39:47 21 representation. So the number is there along with the bar  
10:39:50 22 when you zoom in.

10:39:51 23 And here you see another one like 12, 12, here you  
10:39:55 24 see 11, 11 and so on. You see 12 here. Those are the  
10:39:59 25 first parameter -- or examples of the first parameter.

10:40:02 1 Q. Okay. Thank you, Dr. Akl.

10:40:03 2 And so, what is your conclusion with respect to  
10:40:11 3 Claim 1 of the '481 patent Element e?

10:40:15 4 A. It is infringed by Supercell, and we can put a  
10:40:19 5 checkmark.

10:40:20 6 Q. Now, let's look at Claim 1, Element f, what does this  
10:40:24 7 require?

10:40:24 8 A. So Element f is: Wherein the control unit enables  
10:40:30 9 selection of the new game content when the second parameter  
10:40:33 10 value of the new game content alternative to the removed  
10:40:36 11 game content is smaller than the third parameter value in  
10:40:38 12 which the second parameter value of the removed game  
10:40:42 13 content has been subtracted.

10:40:44 14 Q. All right. Now, that -- that's a mouthful, I know.  
10:40:47 15 But what does that -- how does that map to Clash Royale?  
10:40:50 16 What does Supercell do that infringes this element?

10:40:52 17 A. We actually already saw this. It sounds complicated,  
10:40:55 18 but all it's saying is the second parameter, that's the  
10:40:59 19 Elixir on the game content on the card, which needs to be  
10:41:01 20 subtracted when you play that card from the third  
10:41:05 21 parameter. The third parameter is the Elixir at the  
10:41:07 22 bottom. That's your resource.

10:41:08 23 And -- and so when you play it, it's removed.  
10:41:12 24 It's subtracted. And you get another card. So we've  
10:41:17 25 already saw those in the mechanics. So this is already

10:41:22 1 demonstrated when I -- when I play a card, and it's also  
10:41:25 2 demonstrated in the source code.

10:41:26 3 Q. And we've shown a still here from Plaintiff's  
10:41:28 4 Exhibit 142. Does that help illustrate this, as well?

10:41:32 5 A. Yes, so when I -- when I play a card, first you have a  
10:41:35 6 blank, and then down here it gets subtracted from the  
10:41:37 7 Elixir. That's the third parameter. And the number on the  
10:41:40 8 card, on each card, that's the second parameter.

10:41:43 9           So you have 5, 5, and the Elixir, in this case  
10:41:46 10 the -- the bottom is 5. When you select to attack a card,  
10:41:52 11 when move it and deploy it, the value on the card, the  
10:41:56 12 Elixir gets subtracted from the bottom, and you get blank  
10:41:59 13 for a second, and then you get another card filled in.

10:42:07 14 Q. So what can we conclude then from your analysis about  
10:42:11 15 Claim 1 of the '481 patent?

10:42:12 16 A. That it is infringed by Supercell.

10:42:15 17 Q. Okay. Now, let's then go -- that's the independent  
10:42:19 18 claim, correct?

10:42:20 19 A. Yes.

10:42:20 20 Q. Let's go to the two dependent claims. And first let's  
10:42:24 21 start with Claim 4. Let me show that for us. Here we go.  
10:42:31 22 What does Claim 4 of the '481 patent require?

10:42:34 23 A. The terminal device according to Claim 1 -- we've  
10:42:38 24 already walked through all the elements of Claim 1 --  
10:42:41 25 wherein the control unit displays the game content selected



10:42:44 1 by the player in a second field different from the first  
10:42:48 2 field in a state different from the state of being  
10:42:52 3 displayed in the first field.

10:42:54 4 Q. You talked a little bit earlier about the first field  
10:42:58 5 and the second field. Please remind us what that is?

10:43:03 6 A. So the first field is at the bottom where you have your  
10:43:05 7 cards or your deck. You have the game content in that  
10:43:08 8 rectangle form. The second field is the battleground,  
10:43:13 9 which is the top area, and -- and the claim -- and I'll  
10:43:17 10 wait until the next question.

10:43:18 11 Q. That's fine. That's where I was going.

10:43:20 12 It also says that the game content must be  
10:43:24 13 displayed in the second field in a state different from the  
10:43:29 14 state of being displayed in the first field. What is that  
10:43:33 15 referring to with the word "state" there?

10:43:35 16 A. Yes. So if we go to the next screen, please.

10:43:39 17 When I play a card, we already saw that it  
10:43:45 18 becomes -- and we have a video.

10:43:46 19 Q. Go ahead.

10:43:48 20 A. So this is the first field, this is the second field,  
10:43:52 21 and the claim requires you as you move something from the  
10:43:55 22 first field to the second field, that it has a different  
10:43:58 23 state.

10:43:58 24 And we've shown that in the animation. A card  
10:44:03 25 becomes a player character, like we have a balloon card

10:44:07 1 that actually becomes a balloon that's flying and that's  
10:44:10 2 shooting. We have a Baby Dragon card that becomes an  
10:44:14 3 actual little Baby Dragon flapping its wings.

10:44:19 4 So that meets the language of a second -- a state  
10:44:22 5 different than the first state. And for -- for that claim  
10:44:27 6 language.

10:44:27 7 Q. Is state a common term -- term that's used in the  
10:44:32 8 computer science field?

10:44:33 9 A. Yes.

10:44:33 10 Q. And how is it commonly used in that field?

10:44:35 11 A. A state is just a condition. So like whatever state  
10:44:37 12 that you want -- to be in a different state just means to  
10:44:41 13 be in a different condition or different shape or different  
10:44:44 14 mechanics.

10:44:45 15 Q. All right.

10:44:45 16 MR. MOORE: Let's go ahead and play the video.

10:44:47 17 Q. (By Mr. Moore) And illustrate for us why you believe  
10:44:49 18 this claim element will be met?

10:44:52 19 A. So this is the witch card that I moved, the Night  
10:45:04 20 Witch. And so it changes from a card to an actual witch  
10:45:04 21 that's moving up. So that's the different state. And --  
10:45:08 22 and, again, this is the second field, and this is the first  
10:45:10 23 field.

10:45:10 24 So the claim language is met by the game  
10:45:14 25 mechanics.

10:45:15 1 Q. All right. So what's your conclusion, then, about  
10:45:17 2 Claim 4 of the '481 patent?

10:45:18 3 A. That it is infringed by Supercell.

10:45:26 4 Q. Let's go to Claim 5 then. What does Claim 5 require?

10:45:31 5 A. The terminal device according to Claim 1: Wherein the  
10:45:34 6 control unit enables a -- enables selection of the new game  
10:45:38 7 content before a predetermined time is elapsed and when the  
10:45:44 8 second parameter value of the new game content alternative  
10:45:46 9 to the removed game content is smaller than the third  
10:45:50 10 parameter value from which the second parameter value of  
10:45:53 11 the removed game content has been subtracted.

10:45:56 12 Q. Could you break that down for us, please?

10:45:59 13 A. Sure. So if we look at the first part, you need to  
10:46:04 14 have new game content before a predetermined time has  
10:46:07 15 elapsed.

10:46:08 16 So the predetermined time is -- is the game. You  
10:46:10 17 need -- you have a timer. Like some games are two and a  
10:46:14 18 half minutes or three minutes. But that is a predetermined  
10:46:17 19 time because it's programmed in advance. So -- so it  
10:46:22 20 meets -- the programmer decides the length of the game.

10:46:24 21 The second part of the language says, when the  
10:46:28 22 second parameter -- that's the Elixir -- on the game  
10:46:31 23 content value of the new game content alternative to the  
10:46:36 24 removed game content -- so you've played a card, you got  
10:46:38 25 another card, for example, with a new Elixir, and then you

10:46:43 1 have to have it -- it's smaller than the third parameter,  
10:46:46 2 so you need to play it -- it needs to be smaller than the  
10:46:49 3 third parameter. The third parameter is that Elixir at the  
10:46:53 4 bottom, that's your resource, from which the second  
10:46:57 5 parameter value of the removed game content has been  
10:47:01 6 subtracted.

10:47:01 7 So when you removed -- when you played your second  
10:47:05 8 card -- sorry, when you played a card, your second  
10:47:08 9 parameter, that Elixir was subtracted from the bottom, it  
10:47:12 10 was replaced by new content. That new content also has an  
10:47:17 11 Elixir value, and you can play it if the Elixir value is  
10:47:24 12 less than the upper limit of the bottom and before the game  
10:47:28 13 ends, which is the predetermined time.

10:47:29 14 Q. Okay.

10:47:32 15 MR. MOORE: Let's go back, if we could, to the  
10:47:34 16 video from Claim 4, and could you play that again, please?

10:47:41 17 A. So --

10:47:43 18 Q. (By Mr. Moore) Please illustrate. Yes.

10:47:45 19 A. So here, I -- I played the card. This is the 4. It  
10:47:49 20 has a 4, so the 4 is subtracted. I end up with 2. And  
10:47:54 21 then I get a new content here with -- with another 4. And  
10:47:57 22 I can play the 4 when the -- the Baby Dragon, I can play it  
10:48:03 23 as long as this number is less than the number here, which  
10:48:06 24 is correct.

10:48:06 25 Q. And what's the predetermined time aspect of this?

10:48:08 1 A. The predetermined time is like the length of the game.

10:48:12 2 So, here, I have 1 minute left. The -- the beginning of

10:48:16 3 the game was already pre-determined by the programmer which

10:48:19 4 sets the game at a -- a few minutes.

10:48:22 5 Q. Okay. Let's move forward then.

10:48:28 6 So then what is your conclusion, Dr. Akl, for

10:48:32 7 Claim 5 of the '481 patent?

10:48:33 8 A. That it is infringed by Supercell.

10:48:38 9 Q. Now does that complete your analysis of the battle

10:48:42 10 patents?

10:48:42 11 A. Yes.

10:48:43 12 Q. All right. And what's the next patent you'd like to

10:48:46 13 talk about?

10:48:46 14 A. The next patent I want to talk about is the '655.

10:48:51 15 Q. Okay. And, again, remind us the nature of this patent

10:48:57 16 and what it relates to in the Clash Royale game, please.

10:48:59 17 A. And this is the donation patent. I think we skipped

10:49:04 18 one slide.

10:49:05 19 Q. That's okay. Let's move on to this.

10:49:07 20 So, again, please, Dr. Akl, remind us what this

10:49:10 21 patent relates to and what game you're going to look at

10:49:13 22 here.

10:49:14 23 A. Yes. So I'm going to now look at the donation -- we're

10:49:19 24 still in the same game, and we're going to look at donating

10:49:26 25 virtual content in this game and how a -- the user that

10:49:30 1 receives that content gets an additional benefit.

10:49:35 2 Q. Okay. Now, what -- what is shown on the screen on the  
10:49:46 3 right, which is an excerpt from Plaintiff's Exhibit 153?

10:49:51 4 A. So what I'm showing you here is as a player, I'm not  
10:49:56 5 now in the middle of the game. I'm actually outside of the  
10:49:59 6 game, but I'm still playing the game in terms of the game  
10:50:03 7 is running, but I'm not in the middle of a battle. And so  
10:50:07 8 this is a different view when I'm not in battle.

10:50:10 9 And what I have is I have -- different people can  
10:50:16 10 ask me for cards, can ask me for game content. So I can  
10:50:23 11 request game content, and I can get requests from other  
10:50:26 12 players.

10:50:27 13 So this is me. I am requesting the card. And I'm  
10:50:30 14 requesting that. And I can have card requests from other  
10:50:35 15 people. So this is the name -- can we zoom in, please?  
10:50:40 16 Yes.

10:50:41 17 So this is the name of the player and that player,  
10:50:44 18 for example, is requesting a card. And -- and what I can  
10:50:49 19 do is if I have the card -- so it's kind of like Amazon  
10:50:55 20 wish list where somebody can put in a list of what they  
10:50:58 21 want, and if I actually have that content, I can donate a  
10:51:05 22 card from my possession to -- to a player.

10:51:08 23 Q. And are these players in your clan?

10:51:10 24 A. Yes.

10:51:11 25 Q. So Clash Royale also allows clans?

10:51:16 1 A. Yes.

10:51:17 2 Q. Okay. And what is the purpose of allowing players in  
10:51:20 3 clans to donate cards to each other in a game?

10:51:22 4 A. Well, I can help them level. I can provide them  
10:51:29 5 material that they need to -- to help them go from a card  
10:51:34 6 to a new card with better statistics. And so it makes the  
10:51:40 7 game more fun. If I can help them one time, and then they  
10:51:44 8 can help me another time, it makes the game better for both  
10:51:48 9 of us.

10:51:49 10 Q. So does each player have their own deck of cards  
10:51:52 11 that -- that they hold?

10:51:53 12 A. Yes.

10:51:53 13 Q. And how does a game figure out which of the cards out  
10:51:58 14 of your deck it's going to show in that first field at the  
10:52:02 15 bottom?

10:52:02 16 A. It randomly decided. So there are algorithms that  
10:52:06 17 decide -- you design your -- your -- your game content, and  
10:52:08 18 you unlock stuff. And then the game decides which cards to  
10:52:12 19 play for you in what order.

10:52:14 20 Q. And is -- what's the strategy involved in -- in having  
10:52:20 21 a deck and what cards you might want to put in the deck?  
10:52:24 22 Explain how that works.

10:52:25 23 A. Yes. The -- the -- so you want a deck that's  
10:52:28 24 well-balanced. The -- most video games run on the  
10:52:33 25 principle of rock, paper, scissors, where a card can be

10:52:37 1 stronger than another card but weaker than a different  
10:52:42 2 card.

10:52:42 3 And so this principle of rock, paper, scissors  
10:52:45 4 where paper covers rock and rock breaks scissors and  
10:52:51 5 scissors cuts paper, where any one item is better than  
10:52:56 6 another but worse than -- than one.

10:52:58 7 So -- so this is where there isn't an ultimate  
10:53:04 8 deck. You don't have a deck that's always going to win,  
10:53:07 9 because whatever you pick, there's going to be a card  
10:53:10 10 that's going to be better but a card that's worse.

10:53:12 11 And so the game -- you strategize about how you  
10:53:15 12 build a well-balanced deck with different -- so an example  
10:53:22 13 from the game like the arrows are good against flying  
10:53:26 14 objects. And the flying objects are good against units  
10:53:29 15 that walk. And units that walk are good, for example,  
10:53:34 16 against, you know, the horses that attack.

10:53:35 17 So -- so there's this mechanics where there isn't  
10:53:38 18 one overpowered card, but there's a dynamic in terms of  
10:53:45 19 each card has pros and cons.

10:53:47 20 Q. All right. And you mentioned something earlier about  
10:53:49 21 cards having levels. Can you explain what you mean by  
10:53:52 22 that, please?

10:53:52 23 A. Yes. So the level -- so each card has a level, and  
10:54:00 24 they have statistics. And usually the -- the higher the  
10:54:03 25 level, the better the statistics.



10:54:05 1 Q. Okay. What type of statistics are on different level  
10:54:07 2 cards?

10:54:08 3 A. So -- so you can think of a card -- it's kind of like,  
10:54:13 4 you know, a car and you have a model, you have like a 2015  
10:54:15 5 Mustang, and then -- and it has a certain horsepower. And  
10:54:20 6 then you -- you have a -- a different card with a higher  
10:54:23 7 level with -- with more horsepower.

10:54:27 8 So the statistics are like the health of the card,  
10:54:29 9 which is the health of the character, how much it can  
10:54:33 10 attack, how much attack it can take, how long does it stay  
10:54:38 11 on the battlefield, and so on. So we saw examples of that.

10:54:43 12 Q. I take it a higher level card is better than a lower  
10:54:47 13 level card?

10:54:48 14 A. Yes.

10:54:48 15 Q. Okay. All right. So what -- let's --

10:54:51 16 MR. MOORE: If you can zoom that out, please,  
10:54:53 17 Mr. Groat.

10:54:56 18 Q. (By Mr. Moore) What is your opinion with regard to the  
10:54:58 19 infringement by Supercell of the '655 donation patent?

10:55:03 20 A. So we're going to look at two claims, Claims 5 and 7.  
10:55:09 21 And my opinion will be that Supercell infringes those two  
10:55:15 22 claims, after we walk through the analysis.

10:55:17 23 Q. Do -- are those independent or dependent claims?

10:55:21 24 A. They are dependent claims -- sorry, Claim 7 is an  
10:55:28 25 independent claim. Claim 5 depends on Claim 1.

10:55:32 1 Q. So what does that mean in terms of your analysis that  
10:55:35 2 we'll walk through?

10:55:36 3 A. Right. So I am going -- so Claim 7, we can walk  
10:55:41 4 through, but for Claim 5, we need Claim 1. And Claim 1 and  
10:55:45 5 Claim 7 are very similar. So we're going to walk through  
10:55:48 6 Claim 1 and Claim 7 in parallel.

10:55:53 7 Q. Okay. What pieces of Claims 1 and 7 are we showing  
10:55:57 8 here on the slide regarding the preamble?

10:55:59 9 A. So we're showing that Claim 1 is a system claim. It  
10:56:03 10 requires a server for providing a service to a plurality of  
10:56:09 11 devices respectfully [sic] used by a plurality of users,  
10:56:14 12 and communicating with the plurality of devices, the server  
10:56:17 13 comprising. So it's a system claim about a server and  
10:56:20 14 multiple devices that are in communication with each other.

10:56:24 15 Claim 7 is the method claim, and it's similar  
10:56:28 16 because it says the method of controlling a server for  
10:56:30 17 providing the service. So one is a system claim, and one  
10:56:36 18 is a method claim for controlling the server.

10:56:38 19 Q. And why do you believe that Supercell itself directly  
10:56:43 20 infringes this aspect of Claims 1 and 7?

10:56:46 21 A. Because Supercell owns and operates the servers. They  
10:56:50 22 have the source code on the servers. They also have their  
10:56:54 23 source code on the plurality of devices that also play the  
10:56:58 24 games that are communicating with the servers.

10:57:00 25 Q. The phones?

10:57:01 1 A. Yes.

10:57:01 2 Q. All right. And how does Supercell itself perform a  
10:57:04 3 method for controlling a server for providing, et cetera,  
10:57:08 4 under this element of the claim?

10:57:10 5 A. Because Supercell owns the servers and owns the -- the  
10:57:15 6 source code that controls the -- the games on the server  
10:57:19 7 and communicates with the phone, it meets this claim  
10:57:22 8 limitation.

10:57:23 9 Q. In addition, does Supercell also operate the servers?

10:57:26 10 A. Yes.

10:57:28 11 Q. All right. Now, let's move forward. Here we go.

10:57:34 12 We showed this previously, I believe, Dr. Akl.

10:57:38 13 What is this showing?

10:57:39 14 A. Right. So this is the same game, but we're looking at  
10:57:43 15 a different aspect of the game. We're looking at the  
10:57:44 16 donation. But at least for the first part to show that  
10:57:47 17 it's -- the game is in communication with the server and  
10:57:50 18 the server communicates with the game, we have already  
10:57:53 19 shown that you have to have an Internet connection when you  
10:57:55 20 start the game. And you need to -- the server will find a  
10:58:02 21 player for you. That's how you know that, one, you need to  
10:58:05 22 be in connection with the server.

10:58:06 23 So this is the video -- or this is a snapshot from  
10:58:12 24 the video that we saw earlier of -- of searching for an  
10:58:15 25 opponent.

10:58:16 1 Q. And this is the same evidence on which you relied for  
10:58:22 2 the server-related terms in the battle patents?

10:58:24 3 A. Yes.

10:58:24 4 Q. Thank you.

10:58:25 5 Let's go on to the next -- well, first of all,  
10:58:26 6 what is your opinion about the preambles of Claims 1 and 7  
10:58:29 7 then.

10:58:29 8 A. That they are infringed by Supercell.

10:58:31 9 Q. Let's go on to the next element, which is (a). What  
10:58:37 10 does this element require?

10:58:38 11 A. A storage medium for storing possessed objects  
10:58:45 12 respectively possessed by the plurality of users, acquired  
10:58:49 13 in the service and used in the service.

10:58:51 14 Q. And has the Court issued any claim constructions for  
10:58:55 15 this element?

10:58:56 16 A. Yes.

10:58:56 17 Q. What is the Court's construction?

10:58:57 18 A. So for possessed objects, it means items such as hair  
10:59:02 19 styles, clothes, accessories, goods, and backgrounds.

10:59:07 20 Q. Did you apply the Court's construction in your analysis  
10:59:11 21 of infringement?

10:59:11 22 A. Yes.

10:59:11 23 Q. How does Clash -- how does Supercell operating Clash  
10:59:17 24 Royale meet this element as the Court has construed it  
10:59:18 25 here?

10:59:19 1 A. We -- we already saw the -- the game content that you  
10:59:23 2 have. You own -- you have the possessed objects. So we  
10:59:26 3 have a slide -- on the next one, I think, yes.

10:59:28 4 Q. There you go.

10:59:29 5 A. You can -- you have your objects. They're stored on  
10:59:34 6 the phone. And your -- your -- your different cards have  
10:59:39 7 different characteristics, so that meets the language. And  
10:59:41 8 I think there's a video --

10:59:42 9 Q. Before we -- sure. Before we get to the video, what --  
10:59:46 10 do you see those chests down at the bottom, what is that?

10:59:48 11 A. So right here, you have a chest. Some are closed. It  
10:59:53 12 says this will unlock after a certain time. This one says  
10:59:56 13 I can open it.

10:59:58 14 So by opening chests, you get items, and those  
11:00:02 15 items become part of your inventory or your possession. So  
11:00:06 16 this is one way you can end up with items that are in your  
11:00:10 17 possession, which meets the claim construction.

11:00:11 18 Q. How do you get access to these chests?

11:00:15 19 A. So they -- some are on timers. Some are on pay walls.  
11:00:22 20 And what we mean is you can use real money to get game  
11:00:26 21 currency that helps the clock move faster to unlock chests.

11:00:31 22 So and -- and people would spend a lot of money to  
11:00:33 23 get gems, for example, or gold. And you can use that to  
11:00:40 24 make the chests open faster, which gives you more content.

11:00:43 25 Q. And does this screen show how much gems and gold you

11:00:47 1 had at this particular point in time?

11:00:49 2 A. Yes. So in -- in here at the top, you see I have 4,790  
11:00:55 3 gold coins and 253 gems.

11:00:58 4 Q. All right. And what level are you in Clash Royale when  
11:01:02 5 this --

11:01:03 6 A. 11.

11:01:03 7 Q. 11? Okay. So is that pretty far up?

11:01:05 8 A. No.

11:01:05 9 Q. No. You could still do better? All right.

11:01:09 10 A. Yes.

11:01:09 11 Q. All right.

11:01:09 12 MR. MOORE: Let's show the video, please,

11:01:11 13 Mr. Groat.

11:01:14 14 Q. (By Mr. Moore) What are you showing here in this  
11:01:16 15 video?

11:01:16 16 A. So I'm opening a chest. I click on the chest. It  
11:01:19 17 opens. It gives me gold. So it gives me the resource. I  
11:01:22 18 can click it again. It gives me a Barbarian card. It  
11:01:26 19 gives me a Skeleton card. It gives me a Royal Giant, gives  
11:01:32 20 me a Furnace. This is a rare card. And those are the  
11:01:35 21 cards. And I get multiple versions. So I get this much  
11:01:39 22 gold. I get five of this card. I get 11 of the Skeleton  
11:01:43 23 card. And sometimes you end up with enough cards that you  
11:01:47 24 can then upgrade.

11:01:48 25 Q. What does it mean to upgrade a card?

11:01:51 1 A. So when you upgrade a card, you get a new card with  
11:01:55 2 better statistics. So you trade in your old card and you  
11:01:58 3 get a better card, kind of like when you trade in your car  
11:02:01 4 and you get a new car with better mileage or better engine.  
11:02:05 5 Q. And why are these items that you get out of the chest,  
11:02:08 6 in your opinion, possessed objects as the Court has  
11:02:10 7 construed that claim element?  
11:02:11 8 A. Because it meets the Court's claim construction of  
11:02:16 9 items such as -- and we have a list of goods or backgrounds  
11:02:19 10 or accessories or clothes or -- so it meets the Court's  
11:02:23 11 claim construction, and it becomes part of your inventory.  
11:02:26 12 It becomes your possession.  
11:02:27 13 Q. All right. And so what is your opinion, then, as to  
11:02:30 14 Element a of Claims 1 and 7?  
11:02:32 15 A. That it is infringed by Supercell.  
11:02:33 16 Q. Thank you. Let's move on then to Element b. What does  
11:02:42 17 Claim Element b of Claims 1 and 7 require?  
11:02:46 18 A. Wherein the storage medium stores, for each of the  
11:02:49 19 plurality of users, transfer information indicating a  
11:02:54 20 transfer or a user who has transferred an object to any of  
11:03:00 21 the plurality of the users.  
11:03:01 22 Q. How does Supercell infringe this element of the claims?  
11:03:06 23 A. So the -- the storage medium is your phone which  
11:03:13 24 stores. For each of the plurality of users, transfer  
11:03:17 25 information, so we're going to see notifications that the

11:03:20 1 phone will give you that will indicate a transfer or a user  
11:03:23 2 who has transferred an object to any of other users.

11:03:26 3 Q. In addition to storage on the phone, is there storage  
11:03:29 4 anywhere else in Supercell's -- or is there storage  
11:03:33 5 anywhere else?

11:03:33 6 A. Yes, there's also a storage on the servers, and -- and  
11:03:36 7 all the donations or those transfers happen through the  
11:03:39 8 servers.

11:03:39 9 So the server will remove that item from your  
11:03:48 10 inventory and will add the donation to a different phone, a  
11:03:51 11 user's inventory, and it stores that transaction at the  
11:03:56 12 server.

11:03:56 13 Q. How do you know that?

11:03:57 14 A. Because when you -- if you throw your phone or break  
11:04:00 15 your phone or get a new phone and you download the game,  
11:04:03 16 then all your inventory that you have will download even  
11:04:07 17 though it wasn't stored on the phone if you get a new  
11:04:10 18 phone.

11:04:10 19 So if I reinstall the game fresh because I'm on a  
11:04:15 20 new phone and I don't have any game data, it will -- once I  
11:04:20 21 sign in, it will download all my game data from Supercell's  
11:04:26 22 servers.

11:04:26 23 Q. Okay. Let's look at the next slide. Do you have a  
11:04:29 24 video here that demonstrates the infringement of these  
11:04:31 25 claim elements?



11:04:32 1 A. Yes.

11:04:34 2 MR. MOORE: Could you please play that?

11:04:36 3 Q. (By Mr. Moore) And illustrate why that is so?

11:04:39 4 A. So I -- I hit the social tab at the bottom. It shows  
11:04:46 5 me the players. It shows me what I have and what I can  
11:04:52 6 give and what I'm asking. I hit the donate button, and on  
11:04:56 7 top, it says donating 40 cards. So as I hit the donate, it  
11:05:00 8 gave me an opportunity to donate cards that I own to a  
11:05:06 9 player, in this case Voxel.

11:05:12 10 Q. Let me get this straight, what is Voxel doing here that  
11:05:17 11 set this screen up for you?

11:05:19 12 A. So Voxel is another player in my clan, and I am  
11:05:23 13 selecting -- I am choosing to donate the little purple  
11:05:29 14 dragon.

11:05:31 15 Q. I think that may be a bat actually.

11:05:33 16 A. It's a bat, sorry. The purple bat to Voxel. So I can  
11:05:39 17 pick -- so I can, for example, donate this card to  
11:05:44 18 Chunnyworth, or I can choose to donate the bats to Voxel.  
11:05:50 19 So depending on what I own in my possession, I can see, you  
11:05:55 20 know, what someone wants and I can help them out.

11:05:59 21 Q. And why is this that you demonstrated here show that  
11:06:06 22 Supercell meets Element b of Claims 1 and 7?

11:06:11 23 A. Because I am transferring information indicating the  
11:06:14 24 transfer so -- and at the top of the screen we got that  
11:06:16 25 notification that there was a transfer, and you're

11:06:19 1 transferring an object. So the -- Supercell, both through  
11:06:24 2 the servers and through the games infringe this element.  
11:06:27 3 Q. Let's go ahead then to the next one. It's Element c, a  
11:06:36 4 little bit longer in length. What does this element  
11:06:39 5 require, Dr. Akl?

11:06:39 6 A. A communication module for sending, to a device of a  
11:06:45 7 first user among the plurality of users, display data for  
11:06:50 8 selecting a first object from the possessed objects  
11:06:54 9 possessed by the first user -- I'm going to be the first  
11:06:58 10 user -- and selecting a second user from the plurality of  
11:07:04 11 users, wherein the communication module receives from the  
11:07:06 12 device of the first user a request for transfer of the  
11:07:12 13 selected first object from the first user to the second  
11:07:17 14 user.

11:07:17 15 Q. Okay. Again, can you break that down for us a little  
11:07:20 16 bit, please?

11:07:20 17 A. Yes. So I am the first user, and it's my device, and I  
11:07:25 18 am going to -- I need to have on my display the ability to  
11:07:31 19 select a first object. So I need to be able to select a  
11:07:34 20 first object from the possessed objects possessed by the  
11:07:39 21 first user.

11:07:39 22 So on my phone, I need to be able to see what I  
11:07:42 23 own and be able to then select the second user. I need to  
11:07:47 24 be able to pick somebody to give them the -- what I'm going  
11:07:53 25 to be donating to them. And then there has to be

11:07:57 1 communication that receives from the device.

11:08:00 2           So my phone's connected to the server, and it's  
11:08:03 3 going to receive the request for transfer. So when I hit  
11:08:08 4 donate, there's going to be a request for transfer that's  
11:08:10 5 going to go from my phone and my object from the first user  
11:08:18 6 to the second user. So -- and I can walk through it again  
11:08:23 7 with the slide.

11:08:23 8 Q. Yes, I think it's the same video, but let's look at it  
11:08:26 9 again now that we have that context.

11:08:28 10           Please explain how that claim element is met as  
11:08:31 11 shown in this video in Plaintiff's Exhibit 145.

11:08:34 12 A. Okay. So I hit the social tab, and if we can pause  
11:08:41 13 here just for a second. The -- this is the display, and  
11:08:47 14 the display is showing two things. It's showing my ability  
11:08:50 15 to select from the items possessed, so I can choose which  
11:08:55 16 card from these cards that I own, like the girl or the bat,  
11:08:59 17 and it allows me to select the player.

11:09:02 18           So we have Voxel and we have Chunnyworth, so I  
11:09:07 19 can -- I need to do two things. I need to select the card,  
11:09:10 20 I need to select the player. So, in this case, by -- if I  
11:09:13 21 hit this donate or I hit that donate, I am selecting the  
11:09:17 22 card and selecting the player that I'm going to transfer  
11:09:22 23 items possessed by me.

11:09:23 24           So these are the game objects that are possessed  
11:09:27 25 by me, and then that request is going to go to the server,

11:09:30 1 which is then going to send a notification up here. We'll  
11:09:33 2 see it in a second, when I donate.

11:09:35 3 So now if we can play the video, please. So I hit  
11:09:46 4 the donate, and you see this donating 40 cards on top. And  
11:09:50 5 my cards have now gone to that second player.

11:09:53 6 Q. All right. And does that meet the Element c of  
11:10:00 7 Claims 1 and 7?

11:10:01 8 A. It does.

11:10:02 9 Q. Okay. Now, were you here yesterday for the opening  
11:10:10 10 statements?

11:10:10 11 A. Yes.

11:10:10 12 Q. And is this one of the claim elements that Supercell's  
11:10:14 13 counsel talked about at the opening statements?

11:10:16 14 A. Yes.

11:10:16 15 Q. And I think you recall there being a suggestion and  
11:10:19 16 maybe they put an X by it that this one wasn't present in  
11:10:25 17 Clash Royale?

11:10:25 18 A. Correct.

11:10:26 19 Q. Do you agree with that?

11:10:27 20 A. No.

11:10:27 21 Q. Why not?

11:10:27 22 A. Because the objection that Supercell is making is -- if  
11:10:34 23 we go back to the slide for a second.

11:10:37 24 Q. Sure.

11:10:37 25 A. The -- the -- and play just to the middle.

11:10:40 1 They're saying that I don't -- I'm not the one  
11:10:46 2 selecting -- pause. Thank you.

11:10:48 3 They're saying I'm not the one selecting, and, in  
11:10:51 4 fact, the second player selects the card. That does not  
11:10:59 5 get them out of infringement.

11:11:00 6 So the fact that the second player has a wish  
11:11:03 7 list -- so, for example, Chunnyworth can request different  
11:11:09 8 cards and Voxel can request different cards, and I get to  
11:11:12 9 know which cards they want. That is an additional feature.  
11:11:15 10 But that's unrelated to the claim.

11:11:17 11 The claim says I need to be able to select from my  
11:11:22 12 cards that I possess and give it to somebody. So the fact  
11:11:24 13 that I know what they want doesn't get them out of  
11:11:27 14 infringement because the claim doesn't say how I get to  
11:11:30 15 know what cards.

11:11:31 16 You know, I can pick something or they can tell me  
11:11:35 17 what they want. I'm still doing the selection because I  
11:11:37 18 still get to choose and select from my own cards what I  
11:11:44 19 give to a player. I get to select the person, and I get to  
11:11:47 20 select the card.

11:11:47 21 So I believe their argument is incorrect.

11:11:50 22 Q. Thank you. So, again, your conclusion -- what is your  
11:11:57 23 conclusion as to Element c of Claims 1 and 7?

11:12:05 24 A. That it is infringed and Supercell meets the language  
11:12:07 25 in the claims.

11:12:07 1 Q. Let's move on to Element d. What does Element d  
11:12:10 2 require?

11:12:10 3 A. A processor configured to update the transfer  
11:12:13 4 information of the second user in response to the request  
11:12:16 5 for transfer, for determining.

11:12:19 6 Q. And how does Supercell meet the Limitation d?

11:12:25 7 A. So the -- the second user is going to get a message  
11:12:29 8 that tells them that they received the card. So they're  
11:12:32 9 going to -- that transfer information of the second user --  
11:12:36 10 I'm going to see a notification, and they're going to see a  
11:12:39 11 notification.

11:12:39 12 Q. So in this example that's Voxel, the user you gave the  
11:12:43 13 bats to?

11:12:44 14 A. Yes.

11:12:44 15 Q. All right. And how do they see that notification?

11:12:46 16 A. In a couple of places. It's going to pop up on the top  
11:12:51 17 of their screens, and they're going to see cards added to  
11:12:54 18 their inventory. The same way I saw cards deducted from my  
11:12:59 19 inventory and I saw a notification on the top of the  
11:13:02 20 screen.

11:13:02 21 MR. MOORE: All right. And can we play this  
11:13:04 22 video, please?

11:13:05 23 Q. (By Mr. Moore) And please show us how this illustrates  
11:13:07 24 your testimony.

11:13:08 25 A. So -- so now I am giving a card, and that card is being

11:13:18 1 traded through Voxel. And you see that notification pop in  
11:13:23 2 on top, and the cards have now been sent. And on Voxel's  
11:13:28 3 screen, it will show that they received the cards the same  
11:13:31 4 way it shows I've sent the cards.

11:13:35 5 MR. MOORE: Actually, can we back up and restart  
11:13:38 6 that and make sure you didn't misspeak.

11:13:41 7 Q. (By Mr. Moore) Are you receiving or requesting cards  
11:13:43 8 here?

11:13:43 9 A. So, in this case, I am -- so this is an example where I  
11:13:46 10 request something from Voxel. So for me to show -- to be  
11:13:50 11 able to be in the position of Player 2, I am now asking for  
11:13:54 12 a card to be received. And when Voxel sends me a card, I'm  
11:13:57 13 going to get it.

11:13:58 14 So the same way I showed how I sent a card to  
11:14:01 15 Voxel, Voxel is going to now send me a card. And what you  
11:14:04 16 see on my screen, I am now being User 2 where I am showing  
11:14:10 17 how I can receive cards. This is the -- display is the  
11:14:18 18 same.

11:14:18 19 So on this screen, I am requesting something, and  
11:14:20 20 I received it, and I get the notification, and I get the  
11:14:23 21 cards.

11:14:23 22 Q. So in the example -- in the first example we looked at  
11:14:26 23 where you gave the bats to Voxel, what would Voxel see on  
11:14:30 24 their screen?

11:14:30 25 A. They would have seen a notification and seen that they

11:14:33 1 got the -- the cards. On my screen, I -- I requested  
11:14:37 2 Skeleton cards, and if we play it again, you'll see how I  
11:14:40 3 received the cards and the notifications.

11:14:43 4 Q. Sure. It happens quickly.

11:14:45 5 MR. MOORE: So let's -- if you can pause it when  
11:14:47 6 the notification comes across the top.

11:14:50 7 A. So I request the card, and I hit -- I'm giving them my  
11:14:53 8 wish list, and I hit request. And then Voxel was -- sends  
11:14:56 9 me the cards.

11:14:59 10 MR. MOORE: Pause it, please. Thank you.

11:15:00 11 Q. (By Mr. Moore) Where is that shown?

11:15:01 12 A. It -- it's very -- here, it says Skeleton received from  
11:15:08 13 Voxel, you see at the very top. It's kind of hard to see,  
11:15:12 14 but it's a little notification that pops in, Skeleton  
11:15:16 15 received from Voxel.

11:15:17 16 Q. How does that meet Claim Element d of Claims 1 and 7?

11:15:21 17 A. So, in this case, Voxel is the first user and I'm the  
11:15:26 18 second user and I'm receiving that notification. So for me  
11:15:29 19 to be able to demonstrate what a second user sees, I need  
11:15:31 20 to swap the donation, which is what I need to do for this  
11:15:35 21 claim element here.

11:15:36 22 Q. Okay. Now, what is your ultimate conclusion on  
11:15:41 23 Element d then, Dr. Akl?

11:15:42 24 A. That it is met and infringed by Supercell.

11:15:45 25 Q. All right. And then let's go on to Element e. What



11:15:49 1 does this element require?

11:15:51 2 A. Determine whether the transfer information of the  
11:15:55 3 second user satisfies a condition for granting a second  
11:16:01 4 object when the first object is transferred in response to  
11:16:04 5 the request for transfer, for granting.

11:16:07 6 Q. Did the Court construe or enter a construction for any  
11:16:11 7 of the terms in this element?

11:16:12 8 A. Yes.

11:16:13 9 Q. And what is that construction?

11:16:15 10 A. Second object has to be an item that is distinct from  
11:16:19 11 the first object.

11:16:20 12 Q. Did you apply that construction in your analysis?

11:16:23 13 A. Yes.

11:16:24 14 Q. And how is this element infringed, as the Court has  
11:16:27 15 construed it, by Supercell?

11:16:28 16 A. So when -- for example, for the donation, if I get  
11:16:37 17 enough cards and I have enough cards that I can level my  
11:16:41 18 card, I end up with a new card with better statistics so  
11:16:47 19 that new card would be the second object that would be  
11:16:52 20 distinct from the first card because it would be a  
11:16:55 21 different level, it will be different statistics on it, and  
11:16:58 22 it would meet the Court's claim construction.

11:17:04 23 Q. Okay. Excuse me.

11:17:05 24 And do you have a video here that helps illustrate  
11:17:08 25 that?

11:17:08 1 A. Yes.

11:17:09 2 MR. MOORE: All right. Let's play this portion of  
11:17:11 3 Plaintiff's Exhibit 143.

11:17:12 4 Q. (By Mr. Moore) And please explain how it illustrates  
11:17:15 5 your opinion.

11:17:17 6 A. So this is a card that's Level --

11:17:26 7 Q. 12?

11:17:27 8 A. Level 12, yes. I have 40 out of 200. So once I end up  
11:17:33 9 with 200 cards, I can level it. But at this point, I can't  
11:17:38 10 yet.

11:17:38 11 Q. What do you mean by level it?

11:17:39 12 A. Level it -- you -- you -- I will have an animation  
11:17:43 13 where basically you have enough cards, you trade it in, and  
11:17:47 14 you exchange it, and you get a -- a new card.

11:17:49 15 Q. Okay. So then how does Supercell in Clash Royale  
11:17:54 16 determine whether the transfer information satisfies a  
11:17:56 17 condition for granting this second object based on what  
11:17:58 18 you've shown here?

11:17:59 19 A. Right. So once -- so if we go back and play this at  
11:18:05 20 the very beginning -- okay, we can pause here. I'm sorry,  
11:18:15 21 display a little bit more. Thank you. Yes.

11:18:17 22 So when I click info, I get the information on the  
11:18:20 23 card. But even before I click info, at the bottom of every  
11:18:24 24 card, in this screen, you can see what are the requirements  
11:18:27 25 to increase the level of the card.

11:18:29 1 So the one -- each number will give you the total  
11:18:34 2 number that you need. So, for example, here, you need 800,  
11:18:37 3 and I don't -- I haven't hit that yet. For this one I need  
11:18:41 4 2000 and so on.

11:18:42 5 So the -- if you end up with enough cards that  
11:18:45 6 gets you over that threshold, then you can use gold and you  
11:18:48 7 unlock and you trade in that card for a new card.

11:18:53 8 Q. Okay. But let me skip ahead to this one first.

11:18:57 9 What are you showing here on this slide?

11:18:59 10 A. So this slide I'm going to -- I'm going to show that  
11:19:04 11 I've upgraded a card, and an upgraded card is different  
11:19:08 12 than the previous level card.

11:19:10 13 So once I upgrade a card -- so this one is now  
11:19:14 14 upgraded, for example, to Level 9. It's a new card, and it  
11:19:18 15 has new statistics. So it -- the game gives me a  
11:19:22 16 comparison of my new card versus my previous card that I no  
11:19:26 17 longer have.

11:19:27 18 And this card is better because it's going to have  
11:19:31 19 plus 6 for damage and plus 6 for damage per second, and  
11:19:36 20 plus 6 for hit points. So it's giving me the statistics of  
11:19:41 21 this new card.

11:19:41 22 Q. So why is this upgraded card a second object which the  
11:19:46 23 Court has construed as an item that is distinct from the  
11:19:49 24 first object?

11:19:49 25 A. Because it meets that claim construction. So think of

11:19:52 1 it as, you know, you -- you have a car and you have a 2015  
11:19:56 2 model, and you trade it in, and you get a 2020 model. It's  
11:20:01 3 the same car name, but it's a different car because it's  
11:20:05 4 now a 2020. And it has, you know, better engine, better  
11:20:09 5 gas mileage, and so on.

11:20:10 6 So even though they're both the Skeleton card, it  
11:20:15 7 is a new card with a new level and new parameters and  
11:20:20 8 statistics. So it meets the Court's claim construction.

11:20:22 9 Q. Okay. Thank you.

11:20:23 10 And so what is your conclusion as to Element e of  
11:20:27 11 Claims 1 and 7?

11:20:28 12 A. That Supercell infringes Element e.

11:20:30 13 Q. Let's go on to the next one, please, Element f. What  
11:20:36 14 does this element require?

11:20:38 15 A. Grant the second object used in the service of the  
11:20:42 16 [sic] second user if the transfer information of the second  
11:20:47 17 user satisfies the condition for granting the second  
11:20:49 18 object.

11:20:49 19 Q. All right. And how does Supercell -- walk us through,  
11:20:54 20 please, how Supercell infringes this element.

11:20:56 21 A. So this is saying that you grant the second object --  
11:20:58 22 so, for example, you get the new card -- to the second user  
11:21:04 23 if the transfer information satisfies the condition. So if  
11:21:07 24 I get enough cards or if the transfer was enough cards to  
11:21:11 25 get me over the required number, then I end up with a new

11:21:15 1 card. So the donation would meet this requirement.

11:21:21 2 Q. Okay.

11:21:21 3 MR. MOORE: And let's show this video, please.

11:21:26 4 Q. (By Mr. Moore) Plaintiff's Exhibit 146, how does this  
11:21:27 5 illustrate your testimony?

11:21:28 6 A. Okay. So I'm -- I'm looking at my own cards and I'm  
11:21:31 7 looking at what I have, and now I have enough cards to --  
11:21:34 8 to level it. So I got enough cards from Voxel for my  
11:21:37 9 Skeleton. And now I hit upgrade, and I end up with a new  
11:21:42 10 card that's now has changed from a Level 8 to a Level 9  
11:21:46 11 with new parameters.

11:21:47 12 Q. All right. And so it looks like in this video you had  
11:21:51 13 to decide to upgrade and pay gold to do it; is that right?

11:21:56 14 A. Yes.

11:21:56 15 Q. Does the fact that you have to decide to do the upgrade  
11:21:59 16 and decide to pay the gold prevent infringement of this  
11:22:03 17 claim element?

11:22:03 18 A. No. You still met the language in the claim. This is  
11:22:07 19 an additional requirement, but the claim just requires you  
11:22:10 20 to have met a condition.

11:22:12 21 So the condition that was met is I have enough  
11:22:15 22 cards to upgrade. The fact that there is an additional  
11:22:18 23 condition in the game, you know, to make money, you have to  
11:22:21 24 use gold and you can use real money to get gold, that  
11:22:24 25 doesn't get you out of infringement.

11:22:27 1 Q. And so what is your conclusion then on Element f of  
11:22:34 2 Claims 1 and 7?

11:22:35 3 A. That it -- that Supercell infringes Element f of  
11:22:39 4 Claims 1 and 7.

11:22:40 5 Q. All right. And then Element g -- I think this is our  
11:22:45 6 last element -- 1 and 7; is that right?

11:22:50 7 A. Yes.

11:22:50 8 Q. All right. And what does Element g require?

11:22:52 9 A. For notifying the device of the second user that the  
11:23:00 10 first object is transferred or that the second object is  
11:23:03 11 granted.

11:23:03 12 Q. How does Supercell infringe this claim element?

11:23:05 13 A. So we -- you saw when I asked for cards and I got a  
11:23:10 14 card from Voxel -- in this case, I was the second user --  
11:23:13 15 and I got those objects -- I got the Skeleton cards that I  
11:23:18 16 wanted, and Voxel selected to send me those cards. Then I  
11:23:24 17 get a notification.

11:23:25 18 So that notification and the green arrows that  
11:23:28 19 tell me I can upgrade all meets the claim language of  
11:23:31 20 notifying the device that the first object is transferred.

11:23:34 21 Q. And so what is your opinion as to Element g?

11:23:39 22 A. It is infringed by Supercell.

11:23:41 23 Q. Now, did you also look at source code relevant to the  
11:23:49 24 '655 donation patent?

11:23:49 25 A. I did.

11:23:50 1 Q. All right. And are these -- what is shown here on this  
11:23:53 2 slide?

11:23:53 3 A. So when we have source code printed on paper, every  
11:23:56 4 paper of source code has a number on it. It's a unique  
11:24:01 5 number so we keep track. They're called Bates numbers.

11:24:05 6 So this is the -- so this means I have a piece of  
11:24:08 7 paper that's No. 10 with this whole variable or this whole  
11:24:14 8 label. And now I have like pages from Page 84 to Page 101.  
11:24:21 9 So it's a counter that court systems use to kind of tag  
11:24:25 10 documents.

11:24:25 11 And with source code, they are tagged with  
11:24:31 12 SUPERCELL-SC, which stands for source code. So it's a way  
11:24:31 13 to keep track of what's printed. And you refer to  
11:24:35 14 documents. Unlike books that have their own page numbers,  
11:24:37 15 we create page numbers for documents.

11:24:39 16 Q. And this is from Plaintiff's Exhibit 591 and 593 --

11:24:39 17 A. Yes.

11:24:42 18 Q. -- is that correct?

11:24:44 19 All right. Now, is this all the source code that  
11:24:45 20 you looked at for Clash Royale, or just a portion of it?

11:24:48 21 A. No, this is a portion that's relevant for the opinions  
11:24:50 22 here.

11:24:51 23 Q. All right. Thank you.

11:24:51 24 Now -- now that we've walked through Claims 1 and  
11:24:55 25 7, let's -- let's take them one at a time, and I'll start

11:24:57 1 with No. 7.

11:24:58 2 Do you need to show anything more to show that  
11:25:01 3 Supercell infringes Claim 7?

11:25:03 4 A. No.

11:25:03 5 Q. What about Claim 5?

11:25:06 6 A. We need to walk through Claim 5 because we haven't yet.

11:25:10 7 Q. Okay. And is this all of Claim 5 right here?

11:25:12 8 A. Yes.

11:25:12 9 Q. What does it require?

11:25:13 10 A. The server, according to Claim 1: Wherein the  
11:25:17 11 condition for granting the second object includes a  
11:25:20 12 condition relating to the number of or types of objects  
11:25:24 13 which have been transferred to the second user.

11:25:27 14 Q. How does Supercell infringe Claim 5?

11:25:29 15 A. So we've already shown that Supercell infringes all the  
11:25:32 16 elements of Claim 1. And so for the additional limitation,  
11:25:36 17 we've already shown actually that the condition is met when  
11:25:39 18 you have enough cards or a certain number of cards or the  
11:25:42 19 type of cards.

11:25:43 20 So the condition in Claim 5 is already met. We've  
11:25:49 21 already shown it in the video, the way we upgrade cards.  
11:25:53 22 If you have enough and you've received enough, you can  
11:25:57 23 upgrade it.

11:25:57 24 Q. Enough cards?

11:25:59 25 A. Yes.



11:25:59 1 Q. All right. And what are you showing here on this next  
11:26:02 2 slide?

11:26:02 3 A. So I'm -- I'm showing the same video, the same screen  
11:26:05 4 that we saw that I was able to upgrade my card because I  
11:26:08 5 received enough. And then the counter starts again where  
11:26:12 6 now I need another 800 cards to go up one more level.

11:26:17 7 Q. But you've already had the number of cards it took to  
11:26:20 8 get to this level?

11:26:21 9 A. Yes.

11:26:22 10 Q. All right. Okay. So what is your opinion as to  
11:26:25 11 Claim 5 of the '655 patent?

11:26:26 12 A. That Claim 5 is infringed by Supercell.

11:26:30 13 Q. And does that complete your analysis -- other than the  
11:26:34 14 source code that we'll look at a bit later, does that  
11:26:38 15 complete your analysis as to the '655 donation patent?

11:26:41 16 A. Yes.

11:26:41 17 Q. What's the last patent that we are going to go through?

11:26:43 18 A. The '873.

11:26:45 19 Q. And, again, what game does the '873 patent -- I'm  
11:26:51 20 sorry.

11:26:51 21 What game infringes the '873 patent?

11:26:55 22 A. We're going to be looking at Brawl Stars.

11:26:56 23 Q. All right. And what is the summary of your opinions  
11:27:02 24 for the '873 patent?

11:27:03 25 A. So I'm going to show that Supercell infringes Claims 8

11:27:08 1 and 10 of the '873 shooting patent through Brawl Stars.

11:27:15 2 Q. Are those claims independent or dependent or a mix?

11:27:19 3 A. So Claim 8 is independent, and Claim 10 is independent.

11:27:26 4 Q. They're both independent?

11:27:28 5 A. Yes.

11:27:29 6 Q. All right.

11:27:29 7 MR. MOORE: Go to the next slide. Thank you.

11:27:31 8 Q. (By Mr. Moore) And so how have you chosen to organize  
11:27:34 9 your presentation about these claims and their infringement  
11:27:36 10 by Supercell?

11:27:37 11 A. Right. So Claim 8 is a system claim -- what we call a  
11:27:42 12 system claim. It's referring to a game system. And the  
11:27:47 13 game system here would be the Supercell servers and the  
11:27:50 14 phones running the Supercell software, each running the  
11:27:55 15 games.

11:27:55 16 Claim 10 is a method claim. It's a shooting game  
11:28:01 17 control method which is executed and so on when a terminal  
11:28:04 18 device does the -- plays the game.

11:28:09 19 And so the evidence is going to be the same for  
11:28:11 20 both. The analysis is going to be similar. And so we're  
11:28:14 21 going to be walking through Claims 8 and Claims 10 also in  
11:28:18 22 parallel.

11:28:18 23 Q. And how does Supercell itself infringe these claims?

11:28:20 24 A. It infringes -- Supercell infringes because they own  
11:28:25 25 and operate the servers. They also direct the -- the

11:28:32 1 servers direct how the games operate on the phones, and so  
11:28:36 2 you have -- when we look at the -- the actual language, you  
11:28:42 3 need to have a terminal device -- this is the phone -- a  
11:28:44 4 display configured to display game content -- and we're  
11:28:48 5 going to see the game running on the phone -- and a touch  
11:28:52 6 panel.

11:28:52 7           So the phones have a touchscreen, provided  
11:28:56 8 integral with the display, and the game -- the server  
11:29:00 9 apparatus -- that's the Supercell servers that we saw are  
11:29:04 10 on the East Coast and on the West Coast -- configured to be  
11:29:08 11 connected to the terminal device. So the servers are  
11:29:10 12 connected to the phones via a network. They're connected  
11:29:14 13 through the Internet, wherein the terminal device includes  
11:29:19 14 first circuitry configured to, and then that will take us  
11:29:22 15 to the second limitation.

11:29:24 16 Q. Does Supercell itself use the game system that it --  
11:29:28 17 that is recited here?

11:29:29 18 A. Yes.

11:29:30 19 Q. And how does it do that?

11:29:32 20 A. Because the -- the servers control actually your --  
11:29:37 21 when you're playing on Brawl Stars, the servers are  
11:29:41 22 constantly making sure that whether you can actually shoot  
11:29:44 23 or not or whether your player is dead or not, and all that  
11:29:47 24 information is determined by the server and sent to the  
11:29:50 25 phone.

11:29:50 1 Q. And does Supercell control this system through its  
11:29:55 2 operation of the servers and the software in the phones?

11:29:57 3 A. Yes. So they own and they operate them and they're in  
11:30:02 4 the U.S.

11:30:02 5 Q. And does Supercell receive any benefits from the  
11:30:05 6 operation of this game system that's recited here?

11:30:08 7 A. Yes. So they -- they -- they make money from all the  
11:30:12 8 microtransactions. So the game itself, you download for  
11:30:16 9 free. But you need to -- you can use real money to then  
11:30:19 10 unlock additional players and unlock costumes and unlock  
11:30:24 11 power-ups and unlock accessories. And so they make a lot  
11:30:28 12 of money from those additional transactions, as we saw in  
11:30:32 13 the opening.

11:30:32 14 Q. Does Supercell itself perform the shooting game control  
11:30:36 15 method that's recited in Claim 10?

11:30:41 16 A. Yes, because the game -- the shooting controls -- the  
11:30:43 17 user moves their fingers on the touchscreen, but the  
11:30:47 18 controls are -- the input is from the user, but the game is  
11:30:54 19 Supercell's game.

11:30:55 20 Q. And what controls the -- the game itself?

11:30:58 21 A. So the -- the controller, but you have the processor  
11:31:01 22 and the server that controls the game, and the user works  
11:31:04 23 with the interface. And we'll -- we'll walk through how  
11:31:08 24 the virtual controls appear on the screen.

11:31:11 25 Q. Okay. So in view of all of that, what is your

11:31:14 1 opinion -- whoops, I'm sorry, I skipped over this.

11:31:17 2 We have a video, I think, that -- that illustrates  
11:31:22 3 some of how the game starts up; is that right?

11:31:24 4 A. Yes.

11:31:24 5 Q. And this is from Plaintiff's Exhibit 139?

11:31:27 6 A. Yes.

11:31:27 7 MR. MOORE: Can we play this video, please?

11:31:29 8 Q. (By Mr. Moore) And tell us how it illustrates your  
11:31:31 9 testimony.

11:31:34 10 A. So when you hit play, the game is going to be searching  
11:31:37 11 for players. And it says, found six players, because this  
11:31:41 12 is three against three. So this is showing that you do  
11:31:43 13 have a game that's connected to the server. The server has  
11:31:46 14 found the other players. And then you're going to control  
11:31:49 15 your character. This is the character in green. We'll  
11:31:52 16 walk through that.

11:31:53 17 But what I'm showing here is that you've -- the  
11:31:58 18 game is connected to the server, and the server controls  
11:32:01 19 the game. And the server controls and locates the other  
11:32:06 20 players, and you're connected through the Internet to play  
11:32:07 21 the game.

11:32:08 22 Q. So you're controlling the player in green --

11:32:11 23 A. Yes.

11:32:11 24 Q. -- Voxel with your thumbs?

11:32:15 25 A. Yes. So my left thumb generates -- when I put my thumb

11:32:20 1 on the screen, I get this blue button and it becomes like a  
11:32:24 2 virtual controller. So if I go up, down, left, right, I  
11:32:28 3 can move my player with my left thumb.

11:32:29 4 With my right thumb, I get the red button on the  
11:32:33 5 right, and I use that when I -- when I press it, I get the  
11:32:38 6 cone. And when I drag it up, down, left, I control the  
11:32:42 7 aiming. So the cone will follow the direction of my thumb  
11:32:52 8 to play the game.

11:32:53 9 Q. And the other players you see, who is operating those  
11:32:57 10 other players?

11:32:57 11 A. So the other five players, they're each playing on  
11:33:00 12 their own phone. That information is sent to the server.  
11:33:04 13 And the server then will send that information to my phone  
11:33:09 14 so I can see what the other players are doing. So the  
11:33:11 15 phone controls the other five players on my phone, and it  
11:33:18 16 controls if I can shoot or not.

11:33:20 17 Q. You said the phone controls?

11:33:21 18 A. Sorry. The server controls the -- the -- so each  
11:33:24 19 player sends their information to the server, and then on  
11:33:27 20 my phone, the server will communicate with my phone and  
11:33:33 21 will control the other five players so I can see what the  
11:33:37 22 three enemies are doing. I can see what my two teammates  
11:33:41 23 are doing because of information controlled by the server.

11:33:43 24 Q. And so what is your opinion as to the preambles of  
11:33:47 25 Claims 8 and 10 of the '873 patent?

11:33:49 1 A. That Supercell infringes the 8 and 10 preambles.

11:33:56 2 Q. All right. Let's look at Element a of the '873 patent.  
11:33:59 3 What does this element require?

11:34:00 4 A. You need to identify a first touch operation on the  
11:34:07 5 touch panel.

11:34:08 6 Q. And has the Court entered a claim construction for any  
11:34:11 7 words in this element?

11:34:11 8 A. Yes.

11:34:13 9 Q. What is that construction?

11:34:15 10 A. For touch operation, it means operation that involves  
11:34:22 11 the user's finger or other object, such as a stylus, on the  
11:34:28 12 touch panel.

11:34:28 13 Q. Did you apply the Court's claim construction in your  
11:34:32 14 infringement analysis?

11:34:33 15 A. Yes.

11:34:33 16 Q. And why does Supercell infringe Element a of 8 and 10?

11:34:38 17 A. So the -- once the Court gives us a construction, we  
11:34:44 18 have to use that construction. And the construction just  
11:34:46 19 says for touch operation. It's an operation that involves  
11:34:50 20 the finger. So any operation that involves the finger or a  
11:34:55 21 stylus on the touchscreen would meet the -- what we mean by  
11:35:00 22 touch operation.

11:35:00 23 So it doesn't just have to mean touch because it  
11:35:04 24 has to meet the meaning of operation. So the first touch  
11:35:08 25 operation is actually the touch and drag. So there's -- we

11:35:10 1 call it touch, but there's a couple different ways you  
11:35:13 2 implement touch, like you can touch, you can drag, you can  
11:35:16 3 untouch.

11:35:17 4 So for the first touch it's the touch and drag  
11:35:23 5 that will meet the first touch operation required.

11:35:25 6 Q. And could you just give us a little background on how,  
11:35:29 7 you know, these touch-sensitive screens work to be able to  
11:35:32 8 identify, you know, whether I'm just tapping or double  
11:35:36 9 tapping or dragging or -- or, you know, operations like  
11:35:39 10 that?

11:35:39 11 A. Right. So the -- the -- those are called capacitive  
11:35:44 12 screens, and what that means is the screen is fixed. We  
11:35:48 13 used to have screens before that that actually moved a  
11:35:50 14 little bit, and you actually physically pressed where there  
11:35:53 15 was two layers and you made contact.

11:35:55 16 These capacitive screens are much better, and you  
11:35:59 17 have to -- actually there is an electric field that's going  
11:36:03 18 in the -- on the screen. This is why if you're wearing  
11:36:07 19 gloves, and you -- you touch, sometimes it doesn't happen,  
11:36:09 20 you have to have a discharge, an electricity discharge from  
11:36:12 21 your finger when you touch the screen.

11:36:17 22 And so the screen have become able to detect more  
11:36:20 23 than one touch, and they can -- they can detect a tap, they  
11:36:26 24 can detect a double tap. What makes it a double tap is the  
11:36:29 25 interval between the first tap and the second tap versus



11:36:32 1 just tapping once and tapping again.

11:36:34 2           They can detect when you touch and you hold. They  
11:36:37 3 can detect when you drag. So anytime you're moving your  
11:36:41 4 finger, the capac -- the capacitance is changing, and the  
11:36:46 5 controller measures that disruption and the electromagnetic  
11:36:51 6 field, and can then translate that to an X and Y coordinate  
11:36:54 7 of one or more fingers on the screen.

11:36:59 8           And there's a lot of source code, both that are  
11:37:01 9 provided by the manufacturers of the phone and by the  
11:37:04 10 people developing games. So they don't have to build  
11:37:07 11 everything from scratch, but the source code for the games  
11:37:12 12 will then use what's provided to them in terms of how the  
11:37:16 13 phone's hardware works.

11:37:18 14           And then you will see commands in the source code  
11:37:21 15 that say, okay, now I want to do a touch release. Now I'm  
11:37:25 16 going to do a touch and drag. Now I'm going to do this  
11:37:29 17 operation and look for it. And when you see it implement a  
11:37:34 18 certain functionality.

11:37:35 19 Q. Okay. Thank you.

11:37:37 20           Let's show this video, which is also Plaintiff's  
11:37:43 21 Exhibit 139. And I -- I think you got into this a little  
11:37:47 22 bit a moment ago. But I -- I'd like to ask you to identify  
11:37:51 23 specifically this time of all the touching you're doing on  
11:37:54 24 the screen, what is the first touch operation in Element a?

11:37:59 25           MR. MOORE: Please play the video.

11:38:00 1 Q. (By Mr. Moore) And please let us know when you'd like  
11:38:04 2 to pause it to illustrate that?

11:38:05 3 A. So I hit play, the game searches, loads. If I win, I  
11:38:13 4 get 10 gems -- or I need to find 10 gems to win.

11:38:17 5 Now -- okay. Now, you see if you look at my right  
11:38:22 6 thumb, my right thumb will -- the cone will follow my right  
11:38:27 7 thumb. So I will press and drag and as I drag my finger --

11:38:29 8 THE COURT: Just a minute.

11:38:30 9 MR. SACKSTEDER: Objection, Your Honor.

11:38:30 10 THE COURT: What's your objection, counsel?

11:38:32 11 MR. SACKSTEDER: This appears to be outside the  
11:38:35 12 scope of his expert report, and appears even to be  
11:38:40 13 contradictory to his expert report.

11:38:44 14 THE COURT: Well, it can't both contradict and be  
11:38:47 15 outside of. Which is it going to be?

11:38:49 16 MR. SACKSTEDER: Well, I think his -- what he's  
11:38:52 17 saying right now is -- is not in his expert report.

11:38:55 18 THE COURT: All right. Mr. Moore, do you want to  
11:38:58 19 respond?

11:38:58 20 MR. MOORE: Yes, I -- I would be happy to,  
11:39:00 21 Your Honor.

11:39:00 22 I believe -- I've got notes here, and I believe it  
11:39:05 23 is at least at Paragraph 308 through 311 of his opening  
11:39:12 24 report. It may well be other places, but that's the first  
11:39:15 25 note I have.

11:39:25 1           There also was a supplemental report following the  
11:39:28 2 Court's claim construction order. And I believe -- yes,  
11:39:35 3 I've got a copy of that.

11:39:36 4           THE COURT: Let me ask you this: How much  
11:39:37 5 additional direct examination do you have of this witness?

11:39:39 6           MR. MOORE: We have to finish the '873, which will  
11:39:45 7 take another 10, 15 minutes, I think. And then there's a  
11:39:48 8 couple of short sections, Your Honor, relating to indirect  
11:39:53 9 infringement, and a couple of -- of minor things.

11:39:54 10          THE COURT: Just -- just give me your best  
11:39:57 11 estimate on time.

11:39:58 12          MR. MOORE: Oh, I'm sorry. 30, 35 minutes.

11:40:01 13          THE COURT: Okay. Well, it's 20 minutes until  
11:40:03 14 12:00. We will recess for lunch at this point, and I will  
11:40:06 15 take this objection up with counsel over the break, and  
11:40:10 16 then we'll finish with this witness after we return from  
11:40:14 17 lunch.

11:40:14 18          Ladies and gentlemen of the jury, if you'll take  
11:40:16 19 your notebooks with you to the jury room, the clerk's  
11:40:20 20 office has advised me that your lunch is there waiting on  
11:40:23 21 you.

11:40:24 22          As I said, it's 20 minutes until 12:00. We will  
11:40:32 23 do our best to reconvene at 12:30.

11:40:35 24          Follow all the instructions I've given you,  
11:40:37 25 including, of course, not to discuss the case with each

11:40:39 1 other. Enjoy your lunch, and we'll be back at that time to  
11:40:42 2 continue.

11:40:43 3 COURT SECURITY OFFICER: All rise.

11:40:43 4 THE COURT: The jury is excused for lunch.

11:40:46 5 (Jury out.)

11:41:07 6 THE COURT: Be seated, please.

11:41:08 7 Is this something you need some time to put  
11:41:12 8 together to show me your support for why you believe the  
11:41:15 9 objection is unfounded, or is this something you have  
11:41:18 10 available that you can show me?

11:41:20 11 MR. MOORE: I would appreciate a little time, but  
11:41:22 12 I'd also appreciate knowing a little more of the basis of  
11:41:25 13 the objection because I think he's just testifying that the  
11:41:29 14 first touch operation is the press and drag, and that --  
11:41:32 15 that is throughout his expert report. In fact, was the  
11:41:35 16 issue, the debate on claim construction that he  
11:41:39 17 supplemented after.

11:41:39 18 THE COURT: I think that's a fair question.

11:41:41 19 Mr. Sacksteder, can you restate your objection  
11:41:44 20 with as much precision as possible, please?

11:41:46 21 MR. SACKSTEDER: Paragraph 308 of Dr. Akl's  
11:41:49 22 report, it says --

11:41:50 23 THE COURT: You're going to have to speak up, sir.

11:41:51 24 MR. SACKSTEDER: I apologize, Your Honor.

11:41:53 25 THE COURT: 308 of which report? There are

11:41:56 1 multiple reports.

11:41:57 2 MR. SACKSTEDER: Dr. Akl's opening report.

11:41:58 3 THE COURT: Okay.

11:41:59 4 MR. SACKSTEDER: In the 070 case.

11:42:01 5 It says: The player must touch and hold the red

11:42:04 6 control or button on the right side of the screen. And

11:42:06 7 he's talking about the first touch operation being

11:42:09 8 identified on the touch panel. This interaction by the

11:42:13 9 player with the touch panel on the mobile device to attack

11:42:16 10 another player meets this limitation.

11:42:23 11 THE COURT: All right. And in light of that, your  
11:42:25 12 objection is?

11:42:26 13 MR. SACKSTEDER: Is that he is going on to say  
11:42:28 14 that dragging meets the limitation.

11:42:31 15 MR. MOORE: Your Honor, I think I may see the  
11:42:32 16 confusion. I mean, these are -- I think -- well, actually  
11:42:36 17 I'm not sure I do see it after all.

11:42:39 18 He talks about touch and hold, and then he talks  
11:42:42 19 about dragging is also included. And then in the  
11:42:45 20 supplemental report -- I just had it, I'm sorry,  
11:42:51 21 Your Honor -- I mean, he's talking about the same thing,  
11:43:00 22 touching and holding, and that it includes all the  
11:43:03 23 interactions, including dragging, which -- which requires  
11:43:07 24 to be -- in accordance with that, there's also a source  
11:43:10 25 code analysis that I haven't had time to deal with, later

11:43:14 1 in the report --

11:43:14 2 THE COURT: All right. Tell me which paragraphs  
11:43:16 3 in which reports you're talking about --

11:43:18 4 MR. MOORE: Certainly.

11:43:19 5 THE COURT: -- Mr. Moore.

11:43:21 6 MR. MOORE: The element that we're talking about  
11:43:24 7 here today is at Paragraphs 308 through 311 of the original  
11:43:29 8 report and Paragraphs 23 and 24 of the supplemental report.

11:43:32 9 And then he also types some -- cites some  
11:43:35 10 deposition testimony, but then there's -- in addition to  
11:43:37 11 that, there's some source code analysis. For example, in  
11:43:43 12 444 of the original report, as well as 445 -- really, 445  
11:43:50 13 through 446.

11:43:54 14 And then I'm just checking if there's any  
11:43:56 15 supplemental source code -- not there. But then we have  
11:44:00 16 the second supplemental report I have at my fingertips.  
11:44:07 17 And I'll have to just check him. I don't know if there's  
11:44:10 18 anything in the second report or not. I'd have to check  
11:44:13 19 that.

11:44:13 20 THE COURT: All right. Do you have a response to  
11:44:15 21 that, Mr. Sacksteder?

11:44:16 22 MR. SACKSTEDER: I haven't had the chance to look  
11:44:17 23 at the supplemental report that you're --

11:44:18 24 THE COURT: Well, it looks like to me  
11:44:21 25 Paragraph 309 of the original report covers the dragging,

11:44:24 1 as well as the touching. And as I understand your  
11:44:31 2 objection, that would lead me to -- to overrule it.

11:44:35 3 If there's -- if there's additional substance to  
11:44:39 4 the objection, I'm happy to take it up with you. But at  
11:44:42 5 this point, it appears to me, as I heard the objection,  
11:44:48 6 it's covered by that particular section and the surrounding  
11:44:52 7 sections of his report.

11:44:54 8 So I'm going to -- without more, I'm going to  
11:44:56 9 overrule the objection. I'll assess the time this has  
11:44:58 10 taken to the Defendant. And my clerks can give both sides  
11:45:05 11 an update over the noon hour with regard to your time.

11:45:08 12 Mr. Moore, this witness has been on the stand more  
11:45:10 13 than three and a half hours.

11:45:11 14 MR. MOORE: Okay.

11:45:11 15 THE COURT: I'm sure you're aware of that.

11:45:13 16 MR. MOORE: Yes, I am, Your Honor. Thank you.

11:45:14 17 THE COURT: Because you told me an hour and a half  
11:45:17 18 to two hours before we started, so...

11:45:19 19 MR. MOORE: I did, and, obviously, I was woefully  
11:45:22 20 under on that.

11:45:23 21 THE COURT: I just want you to be aware of where  
11:45:25 22 you stand.

11:45:26 23 MR. MOORE: I appreciate it. This is obviously  
11:45:27 24 extremely important to our case, and so we've chosen to  
11:45:31 25 invest the time to make sure that we're clear.

11:45:34 1 THE COURT: You don't need to justify it. I just  
11:45:37 2 want you to be aware.

11:45:38 3 MR. MOORE: Thank you. I appreciate it.

11:45:41 4 THE COURT: All right. Counsel, we stand in  
11:45:43 5 recess until 12:30 for lunch.

11:46:45 6 (Recess.)

7

8

CERTIFICATION

9

10 I HEREBY CERTIFY that the foregoing is a true and  
11 correct transcript from the stenographic notes of the  
12 proceedings in the above-entitled matter to the best of my  
13 ability.

14

15

16 /S/ Shelly Holmes  
SHELLY HOLMES, CSR, TCRR  
17 OFFICIAL REPORTER  
State of Texas No.: 7804  
18 Expiration Date: 12/31/20

9/11/2020  
Date

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